VPDES PERMIT PROGRAM FACT SHEET

This document gives pertinent information concerning the VPDES Permit listed below. This permit is being processed as a **MAJOR, MUNICIPAL** permit. The effluent limitations contained in this permit will maintain the water quality standards of 9 VAC 25-260-00 et seq.

1. **PERMIT NO.:** VA0024970

EXISTING PERMIT EXPIRATION DATE: August 18, 2010

2. **FACILITY NAME AND LOCAL MAILING ADDRESS**

Lynchburg Regional Wastewater Treatment Plant
2301 Concord Turnpike
Lynchburg, Virginia 24504

FACILITY PHYSICAL LOCATION (IF DIFFERENT)

FACILITY CONTACT:
NAME: Alvin Rucker
TITLE: Plant Superintendent
PHONE: (434) 455-6240
EMAIL: alvin.rucker@lynchburgva.gov

ALTERNATE CONTACT:
NAME: Walter Younger
TITLE: Plant Chemist
PHONE: (434) 455-6240
EMAIL: walter.younger@lynchburgva.gov

3. **OWNER CONTACT:** (TO RECEIVE PERMIT)
NAME: Timothy Mitchell
TITLE: Director, Department of Utilities
COMPANY NAME: City of Lynchburg
ADDRESS: 525 Taylor Street
Lynchburg, Virginia 24501
PHONE: (434) 455-4250
EMAIL: timothy.mitchell@lynchburgva.gov

4. **PERMIT DRAFTED BY**: DEQ, Water Permits, Blue Ridge Regional Office-Lynchburg

Permit Writer(s):	Kevin A. Crider	Date(s):	7/1/10, 7/26/10, 8/17/10, 10/6, 10/27, 2/17/2011
Reviewed By:	Kip D. Foster	Date(s):	8/26, 10/29, 2/16/2011

5. **PERMIT CHARACTERIZATION**: (Check as many as appropriate)

( ) Issuance
(**X**) Reissuance
( ) Revoke & Reissue
( ) Owner Modification
( ) Board Modification
( ) Change of Ownership/Name
Effective Date:

(**X**) Municipal
SIC Code: **4952 Sewerage Systems**
( ) Industrial
SIC Code(s)

(**X**) POTW
( ) PVOTW
( ) Private
( ) Federal
( ) State
( ) Publicly-Owned Industrial

( ) Site Specific WQ Criteria
( ) Variance to WQ Standards
( ) Water Effects Ratio

( ) Interim Limits in Other Document (attach to fact sheet)
( ) Concept Engineering Report Being Approved with Permit
( ) Possible Interstate Effect

6. **APPLICATION COMPLETE DATE:** February 3, 2010

7. **RECEIVING WATERS CLASSIFICATION:** River basin information.

Outfall No: 001

Receiving Stream:	James River	7-Day/10-Year Low Flow:	335 MGD
River Mile:	257.5	7-Day/10-Year High Flow:	672 MGD
Basin:	James River (Middle)	1-Day/10-Year Low Flow:	280 MGD
Subbasin:	James River	1-Day/10-Year High Flow:	552 MGD
Section:	11e	30-Day/5-Year Low Flow:	439 MGD
Class:	III	30-Day/10-Year Low Flow:	397 MGD
Special Standard(s):	None	30-Day/10-Year High Flow:	810 MGD
Water Body:	VAC-H03R (James River/ Blackwater Creek/Ivy Creek)	Harmonic Mean Flow:	1132 MGD

NOTE: For purposes of MIX.exe., the width of the James River at the time of critical low flow is assumed to be approximately 250 feet wide (as used in previous MIX.exe calculations). The approximate width at full bank is approximately 360 feet. Actual low flow observations have shown the river to be significantly less than 250 feet from time to time.

Outfall No: 200 and 300

Receiving Stream:	Unnamed perennial stream to the James River	7-Day/10-Year Low Flow:	0.067 MGD (est.)
River Mile:	257.43	7-Day/10-Year High Flow:	MGD
Basin:	James River (Middle)	1-Day/10-Year Low Flow:	0.058 MGD (est.)
Subbasin:	James River	1-Day/10-Year High Flow:	MGD
Section:	11e	30-Day/5-Year Low Flow:	MGD
Class:	III	30-Day/10-Year Low Flow:	MGD
Special Standard(s):	None	30-Day/10-Year High Flow:	MGD
Water Body:	VAC-H03R	Harmonic Mean Flow:	MGD

8. **FACILITY DESCRIPTION:** Describe the type facility from which the discharges originate.

Existing municipal discharge resulting from the discharge of treated domestic sewage.

There are 21 permitted industrial users contributing to the treatment works. Of those, 15 are significant industrial users (SIUs), 9 categorical and 6 non-categorical. The remaining 6 industrial users are not considered significant, but are permitted. They are as follows:

Azdel, Inc., , 2000 Enterprise Drive, Lynchburg, VA. This non-categorical SIU is a manufacturer of thermoplastic sheeting. Polyethylene resin pellets received via railcar, are heated and mixed with fiberglass to produce the final product. The cooling water is recirculated to reduce consumption. The principal raw materials are polyethylene resin pellets and fiberglass. The total process flow of 0.06 MGD is continuous.

Barr Laboratories, Inc., 2150 Perrowville Road, Forest, VA. This facility is an SIU subject to categorical pretreatment standards under 40 CFR 439, Subpart D – Mixing/Compounding and Formulation (Pharmaceutical). The company manufactures generic prescription products by formulation, mixing and compounding in batch processes. The total process flow of 0.02 MGD is intermittent.

Belvac Production Machinery, Inc., 237 Graves Mill Road, Lynchburg, VA. This facility is an SIU subject to categorical pretreatment standards under 40 CFR 433, Subpart A – Metal Finishing Subcategory (specifically 433.17). The company manufactures canning and plastic bottling machinery and has machine shop operations. Black oxide operation places the facility in the metals finishing category. Regulated wastes include deburr tumbler wastewater and solids and black oxide wastewater. The total process flow of 0.0018 MGD is continuous.

BRC Rail Car Service Co., Inc., 3915 Hydro Street, Lynchburg, VA. This non-categorical SIU cleans, refinishes and repairs railcars. The principal raw materials are acrylic acid, coal tar pitch, ethanol and caprolactum. The total process flow of 0.011 MGD is intermittent.

R.R. Donnelley Printing Company, 4201 Murray Place, Lynchburg, VA. This non-categorical SIU prints catalogs and advertisement inserts by rotogravure. The principal raw materials are copper, toluene-based inks and paper. The total process flow of 0.008 MGD is continuous.

C.B. Fleet Co., Inc., 4615 Murray Place, Lynchburg, VA. This facility is an SIU subject to categorical pretreatment standards under 40 CFR 439, Subpart D – Mixing/Compounding and Formulation (Pharmaceutical). The company manufactures enema and douche solutions and suppositories for global distribution by formulation, mixing and compounding in batch processes. The principal raw materials are mineral oil, glycerol, phosphoric acid, surfactants and fragrances. The total process flow of 0.01 MGD is intermittent.

Frito-Lay, Inc., 230 Jefferson Ridge Parkway, Lynchburg, VA. This non-categorical SIU produces corn and potato snacks using various ingredients. The principal raw materials are corn, potatoes and vegetable oil. The total process flow of 0.275 MGD is continuous.

Griffin Pipe Products, Co., 10 Adams Street, Lynchburg, VA. This non-categorical SIU manufactures cement-lined iron ductile pipe. The principal raw materials are scrap metal, sand, cement and paint. The total process flow of 0.118 MGD is continuous.

Hanson Industries, Inc., 19 Millrace Drive, Lynchburg, VA. This facility is an SIU subject to categorical pretreatment standards under 40 CFR Section 466 (Porcelain Enameling). The company applies porcelain enameling to steel and cast iron-based material for customers primarily involved in the manufacture of industrial lighting fixtures and commercial ranges. The principal raw materials are steel, alkaline cleaning solution, neutral solution, sulfuric acid and enamels. The total process flow of 0.003 MGD is intermittent.

C.R. Hudgins, Inc., 4510 Mayflower Drive, Lynchburg, VA. This facility is an SIU subject to categorical pretreatment standards under 40 CFR 413, Subparts A – Electroplating of Common Metals Subcategory, B – Electroplating of Precious Metals Subcategory and E – Coatings Subcategory. The company handles and treats customer's products using various process lines and operations. Processes include zinc plating, aluminum etching, chromating, passivation of stainless steel, phosphating and painting, screen printing, pemming and light assembly. The principal raw materials are metals, alkaline cleaning solutions, stripping chemicals, cyanide solutions and acids. The total process flow of 0.02 MGD is continuous.

Lynchburg General Hospital, 1901 Tate Springs Road, Lynchburg, VA. This non-categorical SIU generates domestic wastewaters from restroom facilities, sinks, and drinking fountains throughout the building, and from housekeeping operations. Other flows include wastewater from food preparation areas, laboratories and patient treatment areas, and from auxiliary and utility operations. The total non-process flow of 0.05 MGD is continuous.

Liberty University, 1971 University Blvd., Lynchburg, VA. This non-categorical SIU generates domestic wastewaters from restroom facilities, sinks, and drinking fountains throughout the buildings, and from housekeeping operations. Other flows include wastewater from food preparation areas, laboratories, and from auxiliary and utility operations. The total non-process flow of 0.18 MGD is continuous.

Lynchburg College, 1501 Lakeside Drive, Lynchburg, VA. This non-categorical SIU generates domestic wastewaters from restroom facilities, sinks, and drinking fountains throughout the buildings, and from housekeeping operations. Other flows include wastewater from food preparation areas, laboratories, and from auxiliary and utility operations. The total non-process flow of 0.062 MGD is continuous.

Sligh's Quality Plating, 500 Mayflower Drive, Lynchburg, VA. This facility is an SIU subject to categorical pretreatment standards under 40 CFR 413, Subparts A – Electroplating of Common Metals Subcategory (specifically 413.14) and B – Electroplating of Precious Metals Subcategory (specifically 413.24). This company refinishes and repairs household silver (repairs, buffs, cleans and plates with silver, copper and tin). The principal

raw materials are silver and copper plating solutions and alkaline cleaning solutions. The total process flow of 0.0004 MGD is intermittent.

Randolph College, 2500 Rivermont Avenue, Lynchburg, VA. This non-categorical SIU generates domestic wastewaters from restroom facilities, sinks, and drinking fountains throughout the buildings, and from housekeeping operations. Other flows include wastewater from food preparation areas, laboratories, and from auxiliary and utility operations. The total non-process flow of 0.032 MGD is continuous.

Rock-Tenn Company, 1801 Concord Turnpike, Lynchburg, VA. This facility is an SIU subject to categorical pretreatment standards under 40 CFR 430, Subpart E – Papergrade Sulfite Category (Paperboard). Although the facility is subject to the categorical standards, the facility submits to the City of Lynchburg an annual certification letter indicating that it is "not using and has no intention to use chlorophenolic containing biocides". Under this certification, the facility is not regulated under categorical standards but is considered a significant industrial user based on flows and effluent BOD. The principal raw materials are waste paper, paper additives, dyes, alum and polymers. The total process flow of 0.525 MGD is continuous.

Tri Tech Laboratories, 1000 Robbins Road, Lynchburg, VA. This facility is an SIU subject to categorical pretreatment standards under 40 CFR 439, Subpart D – Mixing/Compounding and Formulation (Pharmaceutical). This company manufactures a variety of commercial products such as cosmetics, toothpaste, soaps, lotions and creams by formulation, mixing and compounding in batch processes. The principal raw materials are surfactants, isopropyl alcohol and fragrances. The total process flow of 0.05 MGD is continuous.

Virginia Baptist Hospital, 3300 Rivermont Avenue, Lynchburg, VA. This non-categorical SIU generates domestic wastewaters from restroom facilities, sinks, and drinking fountains throughout the building, and from housekeeping operations. Other flows include wastewater from food preparation areas, laboratories and patient treatment areas, and from auxiliary and utility operations. The total process flow of 0.06 MGD is continuous.

Waytec Electronics Corporation, 1104 McConville Road, Lynchburg, VA. This facility is an SIU subject to categorical pretreatment standards under 40 CFR 413, Subpart H – Printed Circuit Board Subcategory (specifically 413.84) (Electroplating). The company manufactures printed circuit boards in a modified subtractive process. The principal raw materials are copper, tin, trace metals, plating and etching solutions, stripping agents, fiberglass resin, acids and caustics. The total process flow of 0.035 MGD is continuous.

Westminster Canterbury, 501 VES Road, Lynchburg, VA. This non-categorical SIU (retirement home) generates domestic wastewaters from restroom facilities, sinks, and drinking fountains throughout the building, and from housekeeping operations. Other flows include wastewater from food preparation areas and from auxiliary and utility operations. The total process flow of 0.04 MGD is continuous.

Westover Dairy, 2801 Fort Avenue, Lynchburg, VA. This non-categorical SIU (dairy) produces and bottles milk, juice and water. The principal raw materials are milk, juice and cleaning chemicals. The total process flow of 0.085 MGD is continuous.

9. **LICENSED WASTEWATER OPERATOR REQUIREMENTS:** ( ) No (**X**) Yes Class: **I**

10. **RELIABILITY CLASS: I**

11. **SITE INSPECTION DATE:** June 22, 2010 **REPORT DATE:** July 16, 2010

Performed By: Gerald Duff, BRRO Water Compliance Inspector

SEE ATTACHMENT 1 for a copy of the cover page dated August 2, 2010. See facility inspection file for a complete copy of the report.

12. **DISCHARGE(S) LOCATION DESCRIPTION:** Provide **USGS Topo** which indicates the discharge location, significant (large) discharger(s) to the receiving stream, water intakes, and other items of interest.

Name of Topo: Kelly, VA **Quadrant No.:** 106A

SEE ATTACHMENT 2

13. **ATTACH A SCHEMATIC OF THE WASTEWATER TREATMENT SYSTEM(S) [IND. & MUN.]. FOR INDUSTRIAL FACILITIES, ALSO PROVIDE A GENERAL DESCRIPTION OF THE PRODUCTION CYCLE(S) AND ACTIVITIES. FOR MUNICIPAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE TREATMENT PROVIDED.**

Narrative:

The Lynchburg Regional WWTP is a 22.0 MGD facility. Industrial process wastewater from Rock-Tenn, a paper recycler, comes into the wastewater treatment facility where it is treated by a separate grit removal process. The Rock-Tenn wastewater is then commingled with wastewater going into the headworks building.

Wastewater from Amherst County enters the plant adjacent to the primary clarifiers. The wastewater is than diverted to the headworks building where it is commingled with the rest of the incoming wastewater. As an alternative, this wastewater could be diverted directly into the primary clarifiers but this is not the typical mode of operation.

The remainder of the raw wastewater enters into the headworks building. All the wastewater is then screened via dual mechanical bar racks. There is also a manual bar rack present for times of high flow. The screened wastewater then undergoes grit removal by a PistaGrit system. The grit, including that from the Rock-Tenn degritter, goes into a hopper to be landfilled.

Wastewater from the headworks building flows to dual primary clarifiers but only one is currently utilized in the treatment process. The second one may be used as a holding tank during times of high flows or for holding incoming spills. After primary clarification, the wastewater flows to dual aeration basins for biological treatment. Effluent from the aeration basins is sent to a splitter box which diverts the flow to four separate secondary clarifiers. After secondary clarification, the treated wastewater is chlorinated and sent to dual chlorine contact tanks. After chlorination, the wastewater is dechlorinated and discharged to the James River.

A portion of the generated sludge from the secondary clarifiers may be returned to the aeration basins. Wasted sludge from the primary clarifiers is sent to a gravity thickener and on to the sludge holding tank. Wasted sludge from the secondary clarifiers is either recycled to the headworks, sent to either the gravity thickener or gravity belt thickener and on to the sludge holding tank. Sludge from the holding tank is dewatered by centrifuges, after which lime is added for odor control and the sludge is sent to a landfill for final disposal.

SEE ATTACHMENT 3

14. **DISCHARGE DESCRIPTION:** Describe each discharge originating from this facility.

SEE ATTACHMENT 4

15. **COMBINED TOTAL FLOW:**

TOTAL: 22.0 MGD (for public notice)

PROCESS FLOW: MGD (IND.)

NONPROCESS FLOW: MGD (IND.)

DESIGN FLOW: 22.0 MGD (MUN.)

16. **STATUTORY OR REGULATORY BASIS FOR EFFLUENT LIMITATIONS AND SPECIAL CONDITIONS:** (Check all which are appropriate)

- X State Water Control Law
- X Clean Water Act
- X VPDES Permit Regulation (9 VAC 25-31-10 et seq.)
- X EPA NPDES Regulation (Federal Register)
- ___ EPA Effluent Guidelines [40 CFR 400 – 471 (industrial)]
- X EPA Effluent Guidelines [40 CFR 133 (municipal 2^0 treatment)]
- X Water Quality Standards (9 VAC 25-260-00 et seq.)
- X Waste load Allocation from a TMDL or River Basin Plan

17. **LIMITATIONS/MONITORING:** Include **all effluent limitations and monitoring requirements** being placed in the permit for each outfall, including any WET limits. If applicable, include any limitations and monitoring requirements being included for sludge and ground water.

The City currently sends its waste biosolids to a landfill for final disposal. However, the City may consider land application of biosolids through the use of a biosolids contractor. In that regard, appropriate limitations and monitoring for biosolids has been added to the permit; however, the limitations and monitoring do not become effective until the selected biosolids contractor amends their permit to include the Lynchburg WWTP biosolids as a source and the subsequent initiation of the land application.

There are no applicable limitations and monitoring requirements for ground water.

SEE ATTACHMENT 5

18. **SPECIAL CONDITIONS:** Provide **all actual permit special conditions**, including compliance schedules, toxic monitoring, sludge, ground water, storm water and pretreatment.

SEE ATTACHMENT 6

19. **EFFLUENT/SLUDGE/GROUND WATER LIMITATIONS/MONITORING RATIONALE:** For outfalls, attach any analyses completed (**MIX.EXE, WLA.EXE and STATS printouts**) for individual toxic parameters. As a minimum, it will include: waste load allocation (acute, chronic and human health); statistics summary (number of data values, quantification level, expected value, variance, covariance, 97th percentile, and statistical method); input data listing; and, effluent limitations determination. Include **all calculations** used for each outfall's set of effluent limits and incorporate the results of **any water quality model(s)**. Include all calculations/documentation of any antidegradation or anti-backsliding issues in the development of any limitations; complete the review statements below. Provide a rationale for **limiting internal waste streams** and indicator pollutants. Attach any additional information used to develop the limitations, including any applicable water quality standards calculations (acute, chronic and human health).

OTHER CONSIDERATIONS IN LIMITATIONS DEVELOPMENT:

WAIVERS/VARIANCES/ALTERNATE LIMITATIONS: Provide justification or refutation rationale for requested **waivers to the permit application (e.g., testing requirements)** or variances/alternatives to required permit conditions/ limitations. This includes, but is not limited to: variances from technology guidelines or water quality standards; WER/translator study consideration; variances from standard permit limits/conditions.

By letter dated February 20, 2009, the City requested a waiver for submitting some of the CSO information required by EPA Form 2A, Part G. By letter of February 26, 2009, the request was summarized and sent to Region III of the U.S. Environmental Protection Agency for comment/objection. EPA did not reply to the request, therefore it was assumed EPA had no objection to the waiver request. It was decided that if the information was already in DEQ files, contained in various formats/documents, it did not have to be supplied again with the application and, therefore, a waiver request was not necessary.

By letter dated June 17, 2009, the City also requested a waiver for the storm water composite samples required by EPA Form 2F. By letter of June 29, 2009, the request was summarized and sent to Region III of the U.S. Environmental Protection Agency for comment/objection. EPA did not reply to the request, therefore it was assumed EPA had no objection to the waiver request. However, the City has since requested that DEQ perform an inspection to determine if the WWTP met the requirements for no-exposure

certification. Based on the DEQ inspection of June 30, 2009, the City was subsequently advised by letter of July 13, 2009, that the WWTP met the requirements for no-exposure certification. The no-exposure certification form was submitted as part of the VPDES permit reissuance application and, therefore, Form 2F is not necessary.

SUITABLE DATA: What, if any, effluent data were considered in the establishment of effluent limitations and provide all appropriate information/calculations.

All suitable effluent data were reviewed.

ANTIDEGRADATION REVIEW: Provide all appropriate information/calculations for the antidegradation review.

Tier I: ____ **Tier II:** __X__ **Tier III:** _____

The State Water Control Board's Water Quality Standards regulations include an antidegradation policy (9 VAC 25-260-30). All state surface waters are provided one of three levels of antidegradation protection. For Tier I, existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier II water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier II waters is not allowed without an evaluation of the economic and social impacts. Tier III water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters. The limitations in this permit were developed in accordance with section 303(d)(4) of the Clean Water Act. Therefore, antidegradation restrictions do not apply.

The antidegradation review begins with the Tier determination. The facility discharges directly to James River. This receiving stream is listed as Category 4A on the 303(d) list for non-attainment of *E. coli*; however, *E. Coli* is not used as a sole basis for classifying a receiving stream as Tier I. This receiving stream is also listed as Category 5A on the 303(d) list for non-attainment based on PCB contamination in fish tissue. Non-attainment based on fish consumption advisories, bans, and prohibitions (e.g., PCB fish consumption advisory based on PCBs in fish tissue) is also no longer used as a sole basis for classifying a receiving stream as Tier I. In addition, no in-stream data are available that indicate the water quality criteria either have been violated or are barely met. Therefore, the James River, at the point of this facility's discharge, is designated as Tier II and no significant degradation of the existing water quality will be allowed.

Antidegradation baselines would be evaluated for all parameters for which data exist, but because there is no proposed expansion for this existing discharge (no increase in pollutant loading), the baselines are not established. If this permit action had included an expansion of the design capacity for this facility, then baselines would have been calculated as not more than 25% of the unused assimilative capacity for the protection of aquatic life (acute and chronic) and not more than 10% for the protection of human health. The unused assimilative capacity is defined as the difference between existing water quality and the criterion for a specific pollutant.

ANTIBACKSLIDING REVIEW: Indicate if antibacksliding applies to this permit and, if so, provide all appropriate information.

There are no other backsliding issues to address in this permit (i.e., limits as stringent or more stringent when compared to the previous permit).

SEE ATTACHMENT 7

20. **SPECIAL CONDITIONS RATIONALE:** Provide a rationale **for each of the permit's special conditions**, including compliance schedules, toxic monitoring, sludge, ground water, storm water and pretreatment.

SEE ATTACHMENT 8

21. **SLUDGE DISPOSAL PLAN:** Provide a brief description of the sludge disposal plan (e.g., type sludge, treatment provided and disposal method). Indicate if any of the plan elements are included within the permit.

Sludge is wasted from both the primary and secondary clarifiers of the WWTP. Wasted sludge from the primary clarifiers is sent to a gravity thickener and on to the sludge holding tank. Wasted sludge from the secondary clarifiers is either returned to the aeration basins, recycled to the headworks, sent to either the gravity thickener or gravity belt thickener and on to the sludge holding tank. Sludge from the gravity belt thickener can also go directly to the sludge holding tank without thickening. Sludge from the holding tank is dewatered by centrifuges, after which lime is added for odor control and the sludge is sent to a landfill for final disposal.

The permittee shall conduct all sewage sludge use or disposal activities in accordance with the Sludge Management Plan (SMP) approved with the reissuance of this permit.

22. **MATERIAL STORED:** List the type and quantity of wastes, fluids, or pollutants being stored at this facility. Briefly describe the storage facilities and list, if any, measures taken to prevent the stored material from reaching State waters.

SEE ATTACHMENT 9

23. **RECEIVING WATERS INFORMATION:** Refer to the State Water Control Board's Water Quality Standards [e.g., River Basin Section Tables (9 VAC 25-260-00 et seq.). Use 9 VAC 25-260-140 C (introduction and numbered paragraph) to address tidal waters where fresh water standards would be applied or transitional waters where the most stringent of fresh or salt water standards would be applied. Attach any memoranda or other information which helped to develop permit conditions (i.e. **flow determination memo**, **tier determinations**, PReP complaints, special water quality studies, **STORET data** and other biological and/or chemical data, etc.

SEE ATTACHMENT 10

24. **303(d) LISTED SEGMENTS:** Indicate if the facility **discharges directly** to a segment that is listed on the current 303(d) list, if the allocations are specified by an approved TMDL and, if so, provide all appropriate information/calculations. If the facility discharges directly to a stream segment that is on the current 303(d) list, the fact sheet must include a description of how the TMDL requirements are being met.

This facility discharges directly to the James River. This stream segment receiving the effluent is listed as Category 4A on the 303(d) list for non-attainment of *E. Coli*. This receiving stream is also listed as Category 5A on the 303(d) list for non-attainment based on PCB contamination in fish tissue.

EPA approved the "Bacteria TMDL for the James River Basin" on December 4, 2007 (SWCB approved on July 31, 2008) for this segment. It contains a waste load allocation for this discharge of 3.83E+13 (cfu/yr). This permit contains a limit of 126 N/CML (monthly average) for *E. coli* which is in compliance with the TMDL.

The TMDL which will be prepared for this segment will have a waste load allocation for this discharge for PCBs. No limits for PCBs are included in this permit at this time because the effluent is not expected to contain that pollutant. However, the permit contains a TMDL reopener clause which will allow it to be modified, in compliance with section 303(d)(4) of the Act once a TMDL is approved.

SEE ATTACHMENT 11

25. **CHANGES TO PERMIT:** Use **TABLE A** to record any **changes from the previous permit** and the rationale for those changes. Use **TABLE B** to record any **changes made to the permit during the permit processing period** and the rationale for those changes [i.e., use for comments from the applicant, VDH, EPA, other agencies and/or the public where comments resulted in changes to the permit limitations or any other changes associated with the special conditions or reporting requirements].

SEE ATTACHMENT 12

26. **NPDES INDUSTRIAL PERMIT RATING WORKSHEET:**

N/A - This is a municipal facility.

27. **EPA/VIRGINIA DRAFT PERMIT SUBMISSION CHECKLIST:**

SEE ATTACHMENT 13

28. **DEQ PLANNING COMMENTS RECEIVED ON DRAFT PERMIT:** Document any comments received from DEQ planning.

The discharge is in conformance with the existing planning documents for the area.

29. **PUBLIC PARTICIPATION:** Document comments/responses received during the public participation process. If comments/responses provided, especially if they result in changes to the permit, place in the attachment.

VDH COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the Virginia Dept. of Health and noted how resolved.

The VDH provided the following comments on the application: "There are no public water supply raw water intakes located within 15 miles downstream of the discharge. We do not object to the discharge."

New Agency guidance does not require the VDH to review draft permits prior to issuance, therefore there were no comments received.

EPA COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the U.S. Environmental Protection Agency and noted how resolved.

By email dated March 17, 2011, the EPA had no objections to the adequacy of the draft permit, however they only focused their review on the CSO portion of the draft permit due to resources.

ADJACENT STATE COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from an adjacent state and noted how resolved.

Not Applicable.

OTHER AGENCY COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from any other agencies (e.g., VIMS, VMRC, DGIF, etc.) and noted how resolved.

Not Applicable.

OTHER COMMENTS RECEIVED FROM RIPARIAN OWNERS/CITIZENS ON DRAFT PERMIT: Document any comments received from other sources and note how resolved.

The application and draft permit have received public notice in accordance with the VPDES Permit Regulation, and no comments were received.

PUBLIC NOTICE INFORMATION: Comment Period: **Start Date:** March 3, 2011
End Date: April 4, 2011

Persons may comment in writing or by e-mail to the DEQ on the proposed reissuance of the permit within 30 days from the date of the first notice. Address all comments to the contact person listed below. Written or e-mail comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The Director of the DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requestor's interests would be directly and adversely affected by the proposed permit action.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Kevin A. Crider at: Department of Environmental Quality (DEQ), Blue Ridge Regional Office-Lynchburg, 7705 Timberlake Road, Lynchburg, VA 24502. Telephone: (434) 582-6212 E-mail: Kevin.Crider@deq.virginia.gov.

Following the comment period, the Board will make a determination regarding the proposed reissuance. This determination will become effective, unless the Director grants a public hearing. Due notice of any public hearing will be given.

30. **ADDITIONAL FACT SHEET COMMENTS/PERTINENT INFORMATION:**

The permittee is current with their annual permit maintenance fees.

31. **SUMMARY OF SPECIFIC ATTACHMENTS LABELED AS:**

Attachment 1 Site Inspection Report/Memorandum
Attachment 2 Discharge Location/Topographic Map
Attachment 3 Schematic/Plans & Specs/Site Map/Water Balance
Attachment 4 Discharge/Outfall Description
Attachment 5 Limitations/Monitoring
Attachment 6 Special Conditions
Attachment 7 Effluent/Sludge/Ground Water Limitations/Monitoring Rationale/Suitable Data/ Stream Modeling/Antidegradation/Antibacksliding
Attachment 8 Special Conditions Rationale
Attachment 9 Material Stored
Attachment 10 Receiving Waters Info./Tier Determination/STORET Data
Attachment 11 303(d) Listed Segments
Attachment 12 TABLE A and TABLE B - Change Sheets
Attachment ___ NPDES Industrial Permit Rating Worksheet
Attachment 13 EPA/Virginia Draft Permit Submission Checklist
Attachment ___

ATTACHMENT 1

SITE INSPECTION REPORT/MEMORANDUM

ATTACHMENT 2

DISCHARGE LOCATION/TOPOGRAPHIC MAP

From Form 2A Instructions

Provide a topographic map (or other map if a topographic map is unavailable) extending at least one mile beyond property boundaries of the treatment plant, including all unit processes. In addition, the map must show the following:

a. Treatment plant area and unit processes; **Reference Maps 1, 2, 3, 4 and 5.**
b. Major pipes or other structures through which wastewater enters the treatment plant and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable; **Reference Maps 2, 3 and 5.**
c. Each well where fluids from the treatment plant is injected underground; **NA**
d. Wells, springs, and other surface waterbodies listed in public records or otherwise known to the applicant within one-quarter mile of the treatment works' property boundary; **Reference Map 2.**
e. Sewage sludge management facilities (including on-site treatment, storage, and disposal sites); and **Reference Map 3.**
f. Location at which waste classified as hazardous under RCRA enters the treatment plant by truck, rail, or dedicated pipe. **NA**

From Application Addendum

Attach to the back of this application a location map(s) which may be traced from or is/are a production of a U.S. Geological Survey topographic quadrangle(s) or other appropriately scaled contour map(s). The location map(s) shall show the following:

a. Treatment Plant **Reference Maps 1, 2, 3, 4 (topographic) and 5.**
b. Discharge Point **Reference Maps 3, 4 (topographic) and 5.**
c. Receiving waters **Reference Maps 3, 4 (topographic) and 5.**
d. Boundaries of the property on which the treatment plant is located, or to be located. **Reference Map 2.**
e. Distance from the treatment plant to the nearest: (Indicate "not applicable" for any distance greater than 2000 feet)
    i. Residence **Approximately 650 feet to south southwest. Reference Map 2.**
    ii. Distribution line for potable water supply **Runs through plant property on Concord Turnpike. Reference Maps 2, 3 and 5.**
    iii. Reservoir, well, or other source of water supply **No reservoir within 2000 feet. May be private wells at residences located approximately 730 feet to the south southwest and 780 feet to the west. Reference Map 2.**
    iv. Recreational area **Approximately 1600 feet to west northwest there is biking/walking trail (James River Heritage Trail). Across the river (approximately 350 feet) there is a private camp ground. Reference Map 2.**
f. Distance from the discharge point to the nearest: (Indicate "not applicable" for any distance greater than 15 miles)
    i. Downstream community **NA**
    ii. Upstream and downstream water intake points **City of Lynchburg (~ 2.0 miles upstream – potable), Griffin Pipe (~ 2.25 miles upstream – process), Amherst County Service Authority James River Intake (~ 7.5 miles upstream – potable) and Intermet-Archer Creek (~ 4.3 miles downstream – process). Note: Intermet-Archer Creek is closed. Reference Maps 6 and 7.**
    iii. Shellfishing waters **NA**
    iv. Wetlands area **Fringe wetlands along the James River.**
    v. Downstream impoundment **NA**
    vi. Downstream recreational area **Across the river (approximately 350 feet) there is a private camp ground. Additionally, the river (from just above the discharge point to well below) is utilized for canoeing, kayaking, tubing, fishing and other recreational activities.**

From Sludge Application

Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:

a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed. **Sludge is wasted from both the primary and secondary clarifiers of the WWTP. Wasted sludge is thickened and commingled, dewatered and centrifuged, after which lime is added for odor control and the sludge is sent to an adjacent landfill just south of the WWTP for final disposal. Reference Map 4.**

b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries. **Reference Maps 2 and 3.**

MAP 1 Aerial view showing approximate one mile and quarter mile circles from the WWTP.

MAP 2 Aerial view showing approximate quarter mile circle from the treatment works. Map notes the following:

a. Black line – Property boundary
b. Line with black triangles – Incoming sewer lines
c. Light blue lines – Potable water lines
d. Dark blue lines – Intermittent streams
e. River – James River
f. Nearest residence to Treatment works (south)
g. Nearest residences with potable water wells
h. Recreational area – James River Heritage Trail and campground
i. Adjacent landfill that receives most of the sludge (Region 2000)

MAP 3 Aerial view showing treatment unit processes. Map notes the following:

a. Line with black triangles – Incoming sewer lines
b. Light blue lines – Potable water lines
c. Headworks building
d. Primary clarifiers
e. Aeration basins
f. Secondary clarifiers
g. Chlorine contact
h. Outfall 001 (wastewater)
i. Outfall 200 (storm water)
j. Outfall 300 (storm water)
k. Outfall 109 (CSO)
l. James River
m. Sludge processing
n. Adjacent landfill that receives most of the sludge (Region 2000)

MAP 4 Topographic map showing approximate one mile and quarter mile circles from the WWTP. Map notes the following:

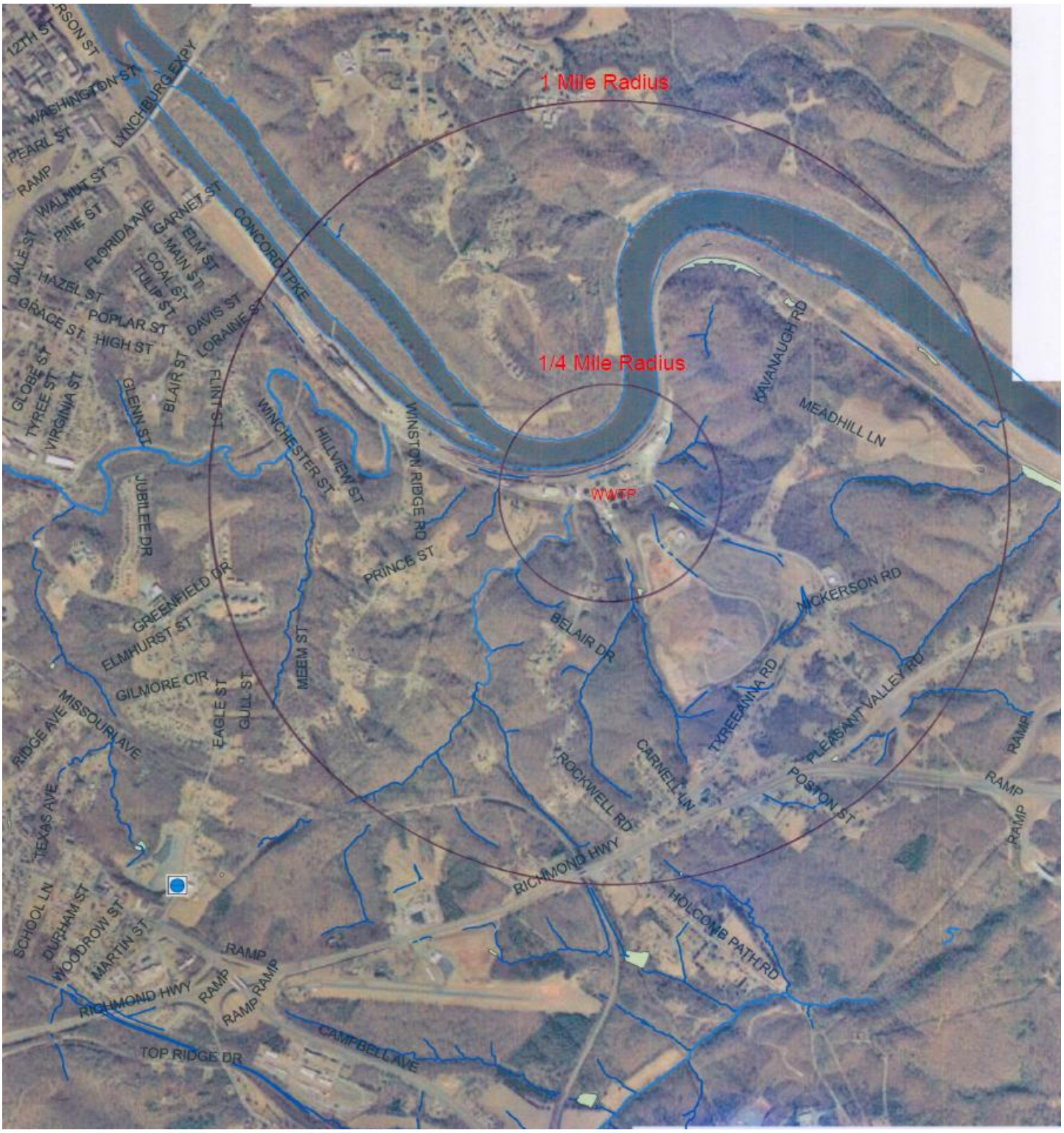
a. Treatment plant location
b. Discharge point (outfall 001)
c. Receiving waters (James River)

MAP 5 Topographic map showing outfall 001, outfall 109 (CSO), nearby water lines and incoming sewer lines. Note: Yellow line is property line but not quite all inclusive.

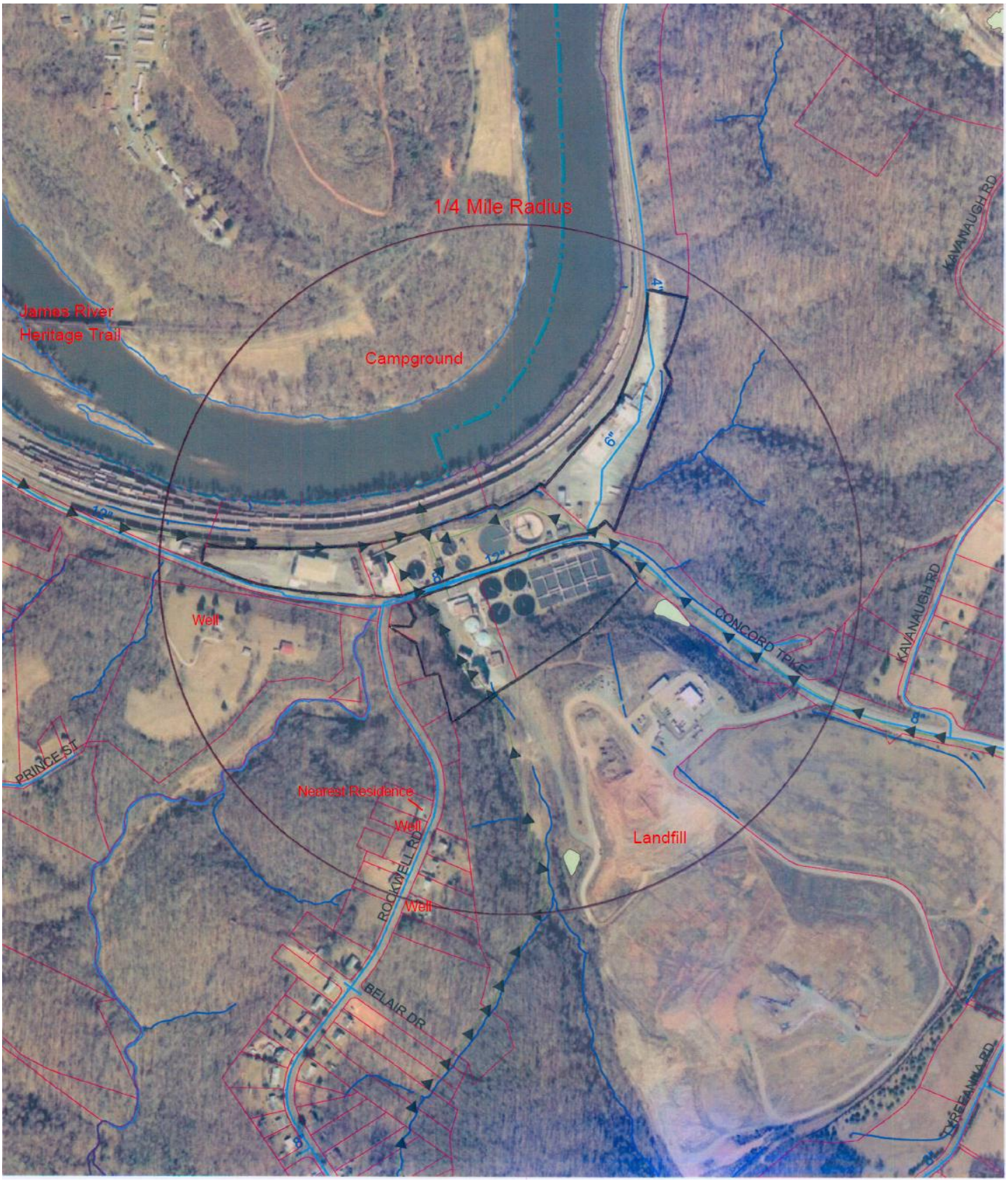
MAP 6 – Aerial view showing the location of the upstream water intakes [City of Lynchburg (potable), Griffin Pipe (process) and Amherst County Service Authority (potable)].

MAP 7 – Aerial showing the location of the downstream water intakes [Intermet-Archer Creek (process) and BWX Technologies (process)]. Note: Intermet-Archer Creek is closed.

MAP 1

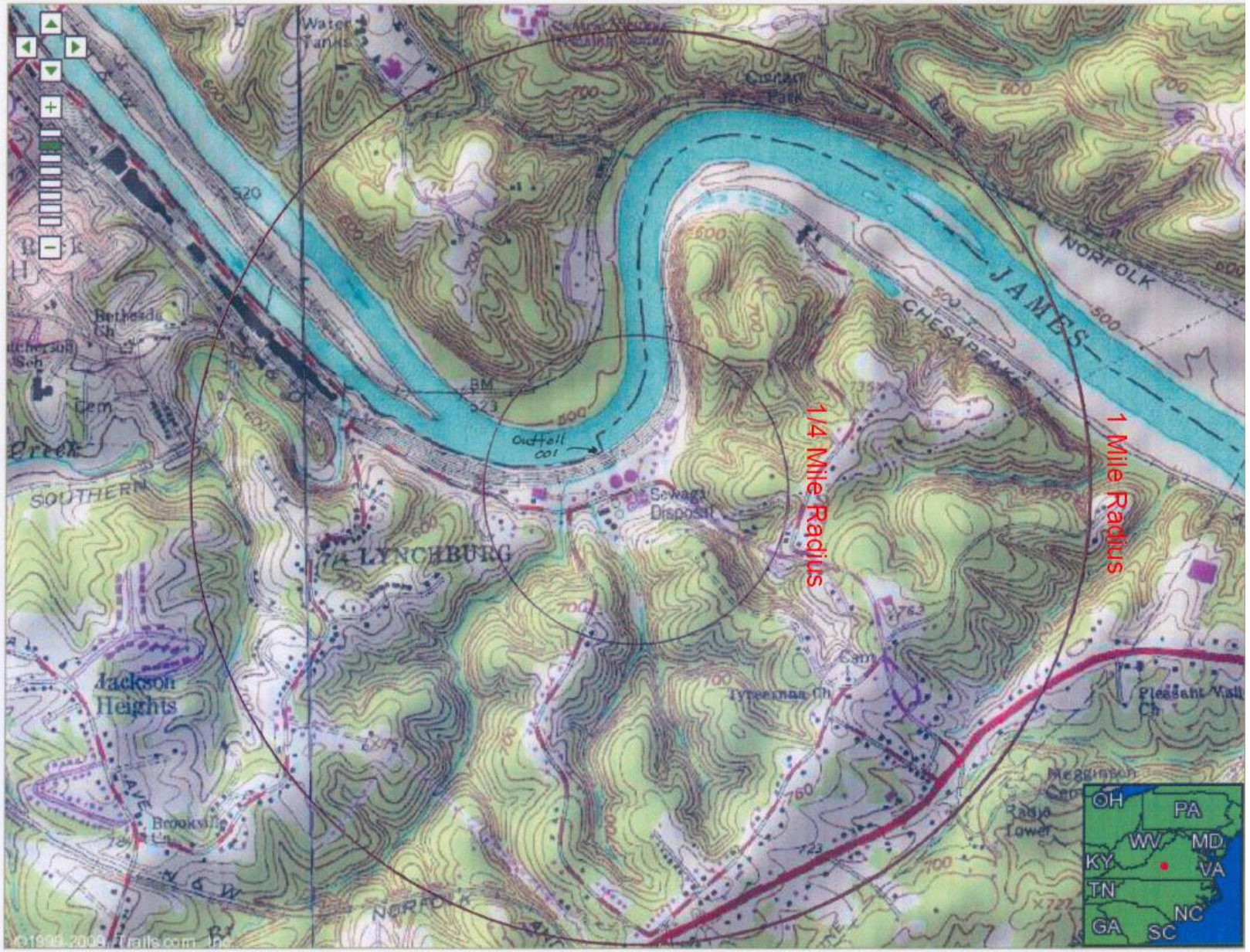

1 Mile Radius
1/4 Mile Radius
WWTP
12TH ST
WASHINGTON ST
PEARL ST
LYNCHBURG EXPY
RAMP
WALNUT ST
PINE ST
FLORIDA AVE
GARNET ST
CONCORD TPKE
DALE ST
HAZEL ST
COAL ST
MAIN ST
ELM ST
TULIP ST
GRACE ST
POPLAR ST
HIGH ST
DAVIS ST
LORAINE ST
GLOBE ST
TYREE ST
VIRGINIA ST
BLAIR ST
FLINT ST
GLENN ST
WINCHESTER ST
HILLVIEW ST
WINSTON RIDGE RD
KAVANAUGH RD
MEADHILL LN
JUBILEE DR
PRINCE ST
GREENFIELD DR
ELMHURST ST
MEEM ST
BELAIR DR
MCKERSON RD
GILMORE CIR
EAGLE ST
GULL ST
RIDGE AVE
MISSOURI AVE
TXREEANNA RD
PLEASANT VALLEY RD
ROCKWELL RD
CARNELL LN
POSTON ST
TEXAS AVE
SCHOOL LN
DURHAM ST
WOODROW ST
MARTIN ST
RICHMOND HWY
HOLCOMB PATH RD
CAMPBELL AVE
TOP RIDGE DR

MAP 2


1/4 Mile Radius
James River
Heritage Trail
Campground
Well
Nearest Residence
Well
Well
Landfill
PRINCE ST
ROCKWELL RD
BELAIR DR
CONCORD TPKE
KAVANAUGH RD
KAVANAUGH RD
CREEANNA RD

MAP 3


James River
Outfall
001
Outfall
300
Outfall
200
Outfall
109
Primary Clarifiers
Chlorine
Contact
Headworks
Building
CONCORD TPKE
Aeration Basins
Secondary Clarifiers
Control
Building
Sludge
Holding
Sludge
Processing
ROCKWELL RD
Region 2000
Landfill
2340
2310
2309
2301
2300
12"
8"
6"
101
105
111
117



Center: 37.3969°N 79.1129°W
Elevation at center: 518 feet (158 meters)
Quad: USGS Kelly
Drg Name: o37079d1
Drg Source Scale: 1:24,000

Display format:
Decimal Degrees

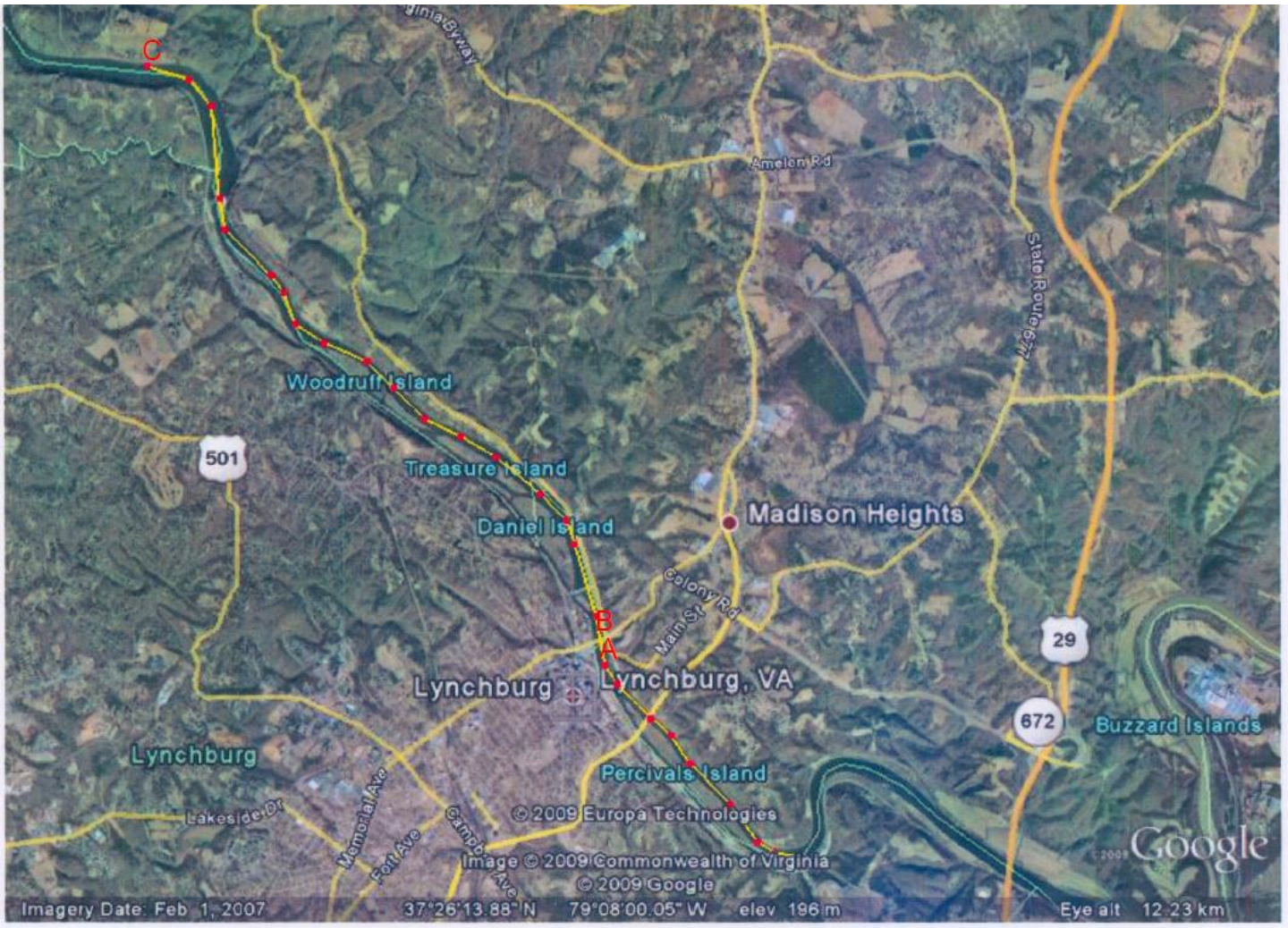
Show center marker

MAP 4

MAP 5

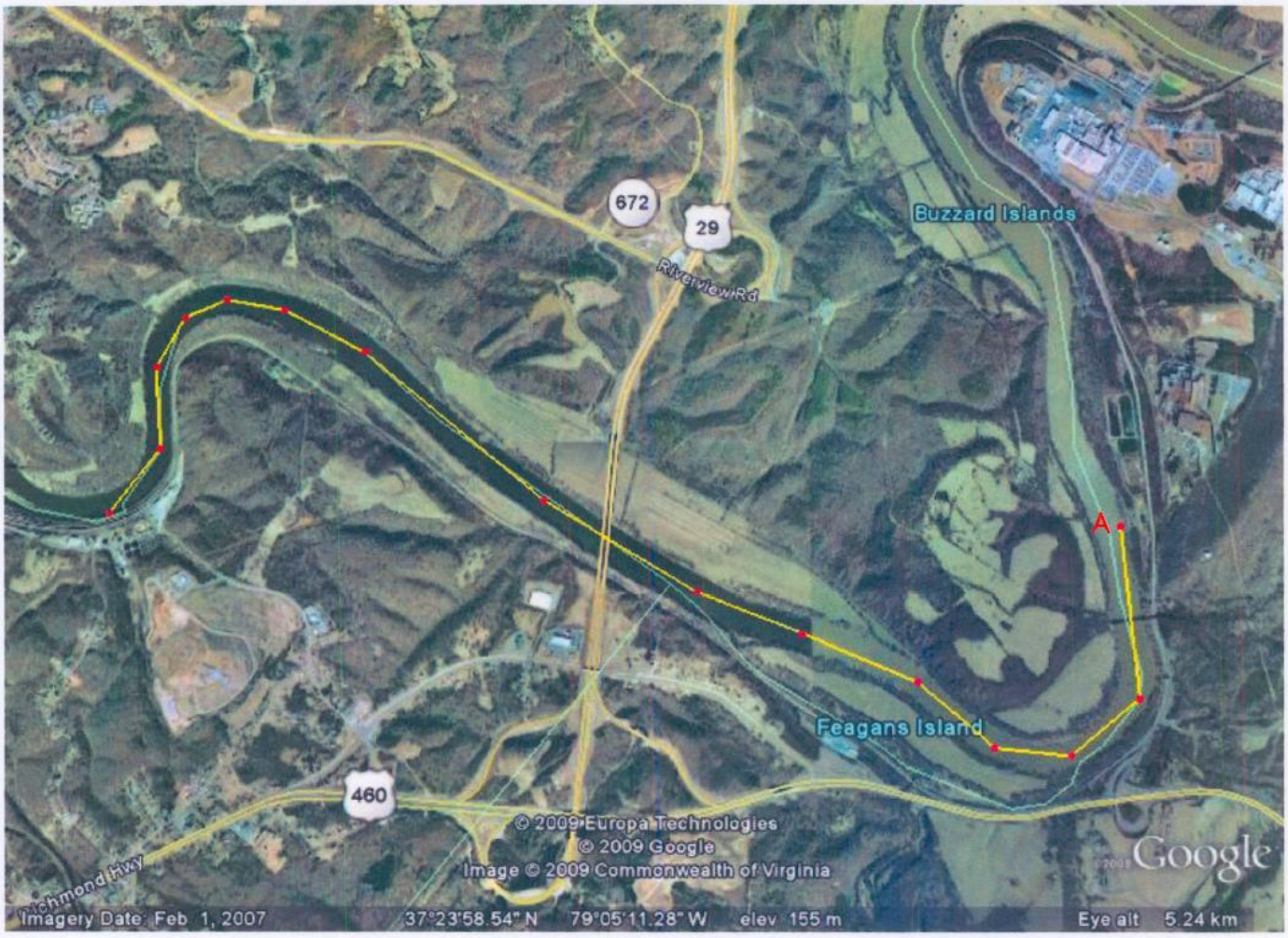

CITY OF LYNCHBURG
WWTP
TOPOGRAPHIC MAP
City Limits
WWTP Property Boundary
Sewer Line
Water Line
Sanitary Sewer Manhole
Combined Sewer Manhole
Storm Sewer Manhole
TOTAL AREA = 847,689 SQ. FT.
= 19.46 ACRES
Outfall 001
CSO 109
AREA = 476,852 SQ. FT.
AREA = 371,817 SQ. FT.
0
100
200
300
400
500 ft

MAP 6



A. City of Lynchburg James River Intake (potable)
B. Griffin Pipe Intake (process)
C. Amherst County Service Authority James River Intake (potable)

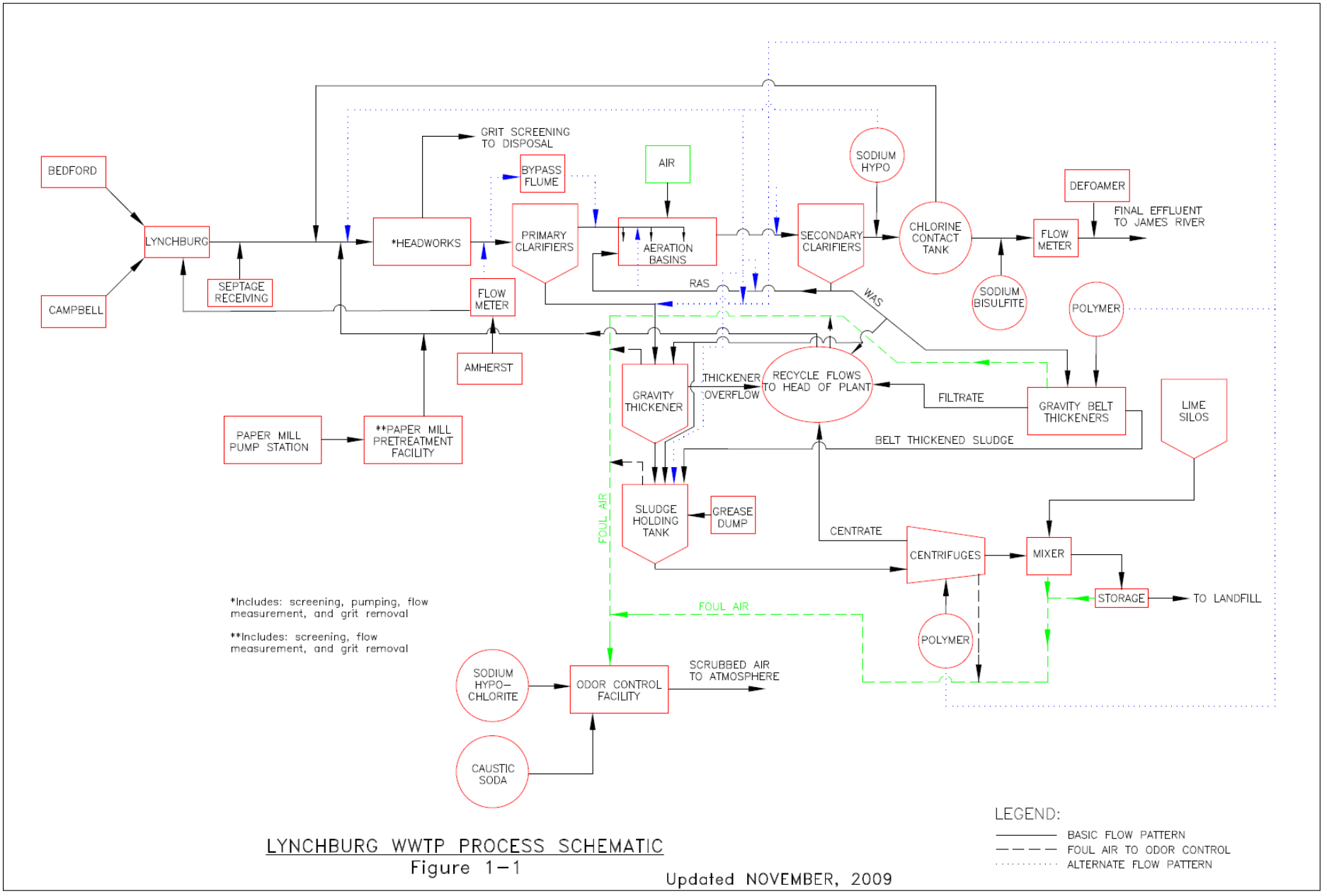
MAP 7



A. Intermet-Archer Creek Intake (process)

ATTACHMENT 3

SCHEMATIC/PLANS & SPECS/SITE MAP/ WATER BALANCE



LYNCHBURG WWTP PROCESS SCHEMATIC

Figure 1-1

Updated NOVEMBER, 2009

ATTACHMENT 4

DISCHARGE/OUTFALL DESCRIPTION

TABLE I

NUMBER AND DESCRIPTION OF OUTFALLS

OUTFALL NO.	DISCHARGE LOCATION	DISCHARGE SOURCE (1)	TREATMENT (2)	FLOW (3)
001	***James River*** 37° 23' 51" 79° 06' 52"	Residential commercial and industrial wastewater serving a population of approximately 84,925.	Bar Screen, Grit Removal, Primary Clarification, Activated Sludge Treatment, Secondary Clarification, Chlorination and Dechlorination. Sludge is thickened and centifuged, with lime added for odor control, and sent to a landfill.	22.0 MGD
200	***Unnamed perennial tributary to the James River*** 37° 23' 827" 79° 06' 833"	Storm water runoff from a portion of the WWTP property.	No Treatment Provided. Qualified for no exposure.	Rainfall Dependent
300	***Unnamed perennial tributary to the James River*** 37° 23' 854" 79° 06' 756"	Storm water runoff from a portion of the WWTP property.	No Treatment Provided. From a portion of the site where there are no wastewater treatment facilities (empty lot).	Rainfall Dependent

(1) List operations contributing to flow
(2) Give brief description, unit by unit
(3) Give maximum 30-day average flow for industry and design flow for municipal

ATTACHMENT 5

LIMITATIONS/MONITORING

MUNICIPAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # **001** DESIGN FLOW: **22.0 MGD**
Outfall Description: **Discharge after Dechlorination**
SIC CODE: **4952 (Sewerage Systems)**

(X) Final Limits ( ) Interim Limits Effective Dates - From: Permit effective date To: Permit expiration date

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
	MONTHLY AVERAGE		WEEKLY AVERAGE		MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
	mg/l*	kg/day*	mg/l*	kg/d*	mg/l*	mg/l*		
Flow (MGD) [a]	NL		NA		NA	NL	Continuous	TIRE
BOD5 [d]	30	2498	45	3747	NA	NA	3 Days/Week	24-HC
Total Suspended Solids [d]	30	2498	45	3747	NA	NA	3 Days/Week	24-HC
Total Residual Chlorine (mg/l) [b] [c]	0.022	NA	0.026	NA	NA	NA	1/Day	Grab
pH (standard units)	NA		NA		6.0	9.0	1/Day	Grab
E. Coli (N/CML – geometric mean) [d]	126		NA		NA	NA	1/Week	Grab

* = UNLESS OTHERWISE NOTED NA = NOT APPLICABLE NL = NO LIMIT, MONITORING REQUIREMENT ONLY

TIRE = TOTALIZING, INDICATING AND RECORDING EQUIPMENT

[a] See Part I.C.6. for additional flow requirements.
[b] See Part I.B. for additional chlorine monitoring instructions.
[c] See Parts I.C.7.a. and I.C.7.b. for quantification levels and reporting requirements, respectively.
[d] See Part I.C.9. for additional instructions regarding effluent monitoring frequencies.
[d] Samples shall be collected between the hours of 10:00 a.m. and 4:00 p.m.

The design flow of this treatment facility is 22.0 MGD.

At least 85% removal for BOD5 and TSS must be attained for this effluent.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

BASES FOR LIMITATIONS:

PARAMETER	MULTIPLIER OR PRODUCTION	TECHNOLOGY	WATER QUALITY	BEST PROFESSIONAL JUDGMENT
Flow	Design flow (22.0 MGD)			X
pH	NA	X		
BOD5 (mg/l)	Secondary Treatment Technology – 30 mg/l (monthly average) and 45 mg/l (weekly average)	X		
BOD5 (kg/day)	Effluent flow of 22.0 MGD	X		
TSS (mg/l)	Secondary Treatment Technology – 30 mg/l (monthly average) and 45 mg/l (weekly average)	X		
TSS (kg/day)	Effluent flow of 22.0 MGD	X		
Total Residual Chlorine	NA		X	
E.Coli (N/CML - geometric mean)	NA		X	

STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 200 and 300
Outfall Description: Storm water associated with municipal sewage treatment plant operations
SIC CODE: 4952 (Sewerage Systems)

THESE OUTFALLS SHALL CONTAIN STORM WATER RUNOFF WHERE NO MONITORING IS REQUIRED. THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER FROM THESE OUTFALLS.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

SLUDGE LIMITATIONS/MONITORING

Site Description: Lynchburg Regional WWTP sludge, prior to land application.
SIC CODE: 4952 (Sewerage Systems) NAICS CODE: 221320 (Sewage Treatment Facilities)

(X) Final Limits ( ) Interim Limits Effective Dates - From: Initiation of Land application To: Permit expiration date

SLUDGE CHARACTERISTICS	LIMITATIONS		MONITORING REQUIREMENTS	
	CEILING CONCENTRATION MAXIMUM	MONTHLY AVERAGE	FREQUENCY	SAMPLE TYPE
	mg/kg	mg/kg		
Percent Solids	NA	NL	6/Year	Composite
Total Arsenic	75	41	6/Year	Composite
Total Cadmium	85	39	6/Year	Composite
Total Copper	4300	1500	6/Year	Composite
Total Lead	840	300	6/Year	Composite
Total Mercury	57	17	6/Year	Composite
Total Molybdenum	75	NA	6/Year	Composite
Total Nickel	420	420	6/Year	Composite
Total Selenium	100	100	6/Year	Composite
Total Zinc	7500	2800	6/Year	Composite

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

6 times per year (6/Year) = In accordance with the following schedule: 1st period (January 1 – February28/29, **due March 10**); 2nd period (March 1 – April 30, **due May 10**); 3rd period (May 1 – June 30; **due July 10**); 4th period (July 1 – August 31; **due September 10**); 5th period (September 1 – October 31, **due November 10**); 6th period (November 1 – December 31, **due January 10**).

a. Annual Sludge Production Report

Report the annual total amount of sludge produced, in dry metric tons, by your facility and the annual amount of sludge, in dry metric tons, used or disposed in various methods (if applicable) according to the approved Sludge Management Plan.

b. Chemical Pollutant Limitations (as noted above).

c. Pathogen Reduction Limitations

(1) Class B – Alternative 2, Processes to significantly reduce pathogens (PSRP) via lime stabilization – Sufficient lime shall be added to the sewage sludge to raise the pH of the sewage sludge to 12 after two hours of contact, or

(2) Class B – Alternative 1, Monitoring of Indicator Organisms – Seven representative samples of the sewage sludge shall be collected. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 Most Probable Number per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

d. Vector Attraction Reduction Limitations

Lime addition – The pH of the sewage sludge shall be raised to 12 or higher by alkaline addition and, without the addition of more alkaline material, shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours.

The bases for the limitations/monitoring are noted in Attachment 7 of this fact sheet.

ATTACHMENT 6

SPECIAL CONDITIONS

B. ADDITIONAL TOTAL RESIDUAL CHLORINE (TRC) LIMITATIONS AND MONITORING REQUIREMENTS

1. a. The permittee shall monitor the TRC at the outlet of the chlorine contact tank, prior to dechlorination, once per 2 hours by grab sample.

   b. No more than 36 of all samples taken after the chlorine contact tank, prior to dechlorination, shall be less than 0.75 mg/l for any one calendar month.

   c. No TRC sample collected after the chlorine contact tank, prior to dechlorination, shall be less than 0.6 mg/l.

2. If an alternative to chlorination as a disinfection method is used, *E. coli* shall be limited and monitored by the permittee as specified below:

	Discharge Limitations	Monitoring Requirements	
	Monthly Average	Frequency	Sample Type
E. coli (n/100 ml)	126*	1/Day	Grab (Between 10 AM & 4 PM)

The above requirements, if applicable, shall substitute for the TRC requirements delineated in Parts I.A. and I.B.1 above.

* Geometric Mean

C. OTHER REQUIREMENTS OR SPECIAL CONDITIONS

1. Permit Reopeners

   a. Sludge Reopener

   This permit may be modified or, alternatively, revoked and reissued if any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.

   b. Total Maximum Daily Load (TMDL) Reopener

   This permit shall be modified or, alternatively, revoked and reissued if any approved waste load allocation procedure, pursuant to section 303(d) of the Clean Water Act, imposes waste load allocations, limits or conditions on the facility that are not consistent with the requirements of this permit.

   c. Chesapeake Bay Nutrients Reopener

   This permit may be modified or, alternatively, revoked and reissued to incorporate new or alternative nutrient limitations and/or monitoring requirements should the State Water Control Board adopt new nutrient standards for the waterbody receiving the discharge, including the

Chesapeake Bay or its tributaries, or if a future water quality regulation or statute requires new or alternative nutrient control.

2. Licensed Wastewater Operator Requirement

The permittee shall employ or contract at least one Class I licensed wastewater works operator for the facility. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the DEQ Regional Office, in writing, whenever he is not complying, or has grounds for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.

3. Reliability Class Requirement

The permitted treatment works shall meet Reliability Class I.

4. Certificate to Construct (CTC) and Certificate to Operate (CTO) Requirements

The permittee shall, in accordance with the Sewage Collection and Treatment Regulations, obtain a CTC and a CTO from the DEQ prior to constructing wastewater treatment facilities and operating the facilities, respectively.

5. Operations and Maintenance (O & M) Manual

The permittee shall review the existing O & M Manual and notify the DEQ Regional Office, in writing, that it is still accurate and complete. If the O & M Manual is no longer accurate and complete, a revised O & M Manual shall be submitted for approval to the DEQ Regional Office. The permittee will maintain an accurate, approved O & M Manual for the treatment works. This manual shall include, but not necessarily be limited to, the following items, as appropriate:

a. Treatment works design and operation, routine preventative maintenance of units within the treatment system, critical spare parts inventory and record keeping;
b. Procedures for measuring and recording the duration and volume of treated wastewater discharged;
c. Techniques to be employed in the collection, preservation and analysis of effluent and sludge samples; and,
d. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants characterized in Part I.C.8. (Materials Handling and Storage) that will prevent these materials from reaching state waters; and,

Any changes in the practices and procedures followed by the permittee shall be documented and submitted for approval, as noted above, within 90 days of the effective date of the changes. Upon approval of the submitted manual changes, the revised manual becomes an enforceable part of this permit. Noncompliance with the O & M Manual shall be deemed a violation of the permit.

Letter/Revised Manual Due: No later than July 10, 2011.

6. 95% Design Capacity Notification

A written notice and a **plan of action** for ensuring continued compliance with the terms of this permit shall be submitted to the DEQ Regional Office when the monthly average flow influent to the sewage treatment plant reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period. The written notice shall be submitted within 30 days and the plan of action shall be received at the DEQ Regional Office **no later than 90 days from the third consecutive month for which the flow reached 95 percent of the design capacity.** The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or

reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.

7. Compliance Reporting Under Part I.A. and I.B

a. Quantification Levels

(1) The quantification levels (QL) shall be as follows:

Effluent Characteristic	Quantification Level
Chlorine, Total Residual	0.10 mg/l

(2) The permittee may use any approved method which has a QL equal to or lower than the QL listed in a.(1) above. The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method.

(3) It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sampling and analytical procedures. QA/QC information shall be documented to confirm that appropriate analytical procedures have been used and the required QLs have been attained.

b. Reporting

(1) **Monthly Average** -- Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in a.(1) above shall be determined as follows: All concentration data below the specified QL listed in a.(1) above shall be treated as zeros. All concentration data equal to or above the QL shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, for the month. This arithmetic average shall be reported on the DMR as calculated. If all data are below the QL, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the calculated concentration is <QL, then report "<QL" for the quantity; otherwise, use the calculated concentration to calculate the quantity.

(2) **Maximum Weekly Average** -- Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in a.(1) above shall be determined as follows: All concentration data below the specified QL listed in a.(1) above shall be treated as zeros. All concentration data equal to or above the QL shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each complete calendar week entirely contained within the reporting month. The maximum value of the weekly averages thus determined shall be reported on the DMR. If all data for each weekly average are below the QL, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the calculated concentration for each weekly average is <QL, then report "<QL" for the quantity; otherwise, use the calculated maximum value of the weekly averages to calculate the quantity.

(3) Any single datum required shall be reported as "<QL" if it is less than the QL listed in a.(1) above. Otherwise, the numerical value shall be reported.

8. Materials Handling and Storage

Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation and/or storage of raw or intermediate materials, final

product, by-product or wastes, shall be handled, disposed of and/or stored in such a manner so as not to permit a discharge of such product, materials, industrial wastes and/or other wastes to State waters, except as expressly authorized.

9. Effluent Monitoring Frequencies

If the facility permitted herein is issued a Notice of Violation for any of the parameters listed below, then the following effluent monitoring frequencies shall become effective upon written notice from DEQ and remain in effect until permit expiration date.

Effluent Parameter	Frequency
BOD5	1/Day
TSS	1/Day

No other effluent limitations or monitoring requirements are affected by this special condition.

10. Indirect Dischargers

The permittee shall provide adequate notice to the DEQ Regional Office of the following:

a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Section 301 or 306 of Clean Water Act and the State Water Control Law if it were directly discharging those pollutants; and

b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of this permit.

Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the treatment works, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the treatment works.

11. PCB Monitoring

The permittee shall monitor the effluent at Outfall 001 for Polychlorinated Biphenyls (PCBs) in accordance with the schedule in 11.f. below. DEQ will use these data for development of a PCB TMDL for the James River River. The permittee shall conduct the sampling and analysis in accordance with the requirements specified below. At a minimum:

a. Monitoring and analysis shall be conducted in accordance with the most current version of EPA Method 1668, congener specific results as specified in the PCB Point Source Monitoring Guidance. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures.

b. The permittee shall collect a minimum of 2 wet weather samples and 2 dry weather samples according to the PCB Point Source Guidance No. 09-2001, Appendix C (Sample Collection Methods for Effluent and Storm Water) and/or it's amendments. Samples previously collected from these outfalls and analyzed with Method 1668, may be used in satisfying the total number of samples required even if the collection occurred prior to the current permit term.

c. The sampling protocol shall be submitted to the DEQ- BRRO Lynchburg Regional Office for review and approval in accordance with the schedule in 11.f. below prior to the first sample collection.

d. The data shall be submitted to the DEQ- BRRO Lynchburg Regional Office by the 10th day of the month following receipt of the results according to the PCB Point Source Guidance No. 09-2001, Appendix E (Reporting Requirements for Analytical (PCB) Data Generated Using EPA Method 1668) and/or it's amendments. The submittal shall include the unadjusted and appropriately quantified individual PCB congener analytical results. Additionally, laboratory and field QA/QC documentation and results should be reported. Total PCBs are to be computed as the summation of the reported, quantified congeners.

e. If the results of this monitoring indicate actual or potential exceedance of the water quality criterion or the Waste Load Allocation specified in the approved TMDL, the permittee shall submit to the DEQ- BRRO Lynchburg Regional Office for review and approval a Pollutant Minimization Plan (PMP) designed to locate and reduce sources of PCBs in the collection system. A component of the plan may include an evaluation of the PCB congener distribution in the initial source intake water to determine the net contributions of PCBs introduced to the treatment works.

f. PCB monitoring shall proceed in accordance with the following schedule:

1.	Submit PCB sampling protocol	**No later than September 10, 2012.**
2.	Complete and Submit PCB monitoring results to the DEQ Blue Ridge Regional Office – Lynchburg.	**No later than September 10, 2013.**
3.	If required, Submit Pollutant Minimization Plan (PMP)	**Within 1 year of notification by DEQ.**

12. Facility Closure Plan

If the permittee does not intend to apply for reissuance of this permit or if any part of the facility presently permitted will not be included in a future permit application, an **approvable closure plan** shall be submitted to the DEQ Regional office **90 days before the facility is taken out of service**. The closure plan shall include a plan of action and a schedule.

13. Permit Application Requirement

In accordance with Part II. M. of this permit, a new permit application shall be submitted for the reissuance of this permit.

Application Due: October 7, 2015.

D. PRETREATMENT

1. The permittee's pretreatment program has been approved. The program is an enforceable part of this permit. The permittee shall:

a. Implement a pretreatment program that complies with the Clean Water Act, Water Control Law, State regulations and the approved program.

b. Submit to the DEQ Regional Office an annual report that describes the permittee's program activities over the previous year**. The annual report shall be submitted no later than January 31 of each year** and shall include:

(1) An updated list of the Significant Industrial Users* showing the categorical standards and local limits applicable to each.

(2) A summary of the compliance status of each Significant Industrial User with pretreatment standards and permit requirements.

(3) A summary of the number and types of Significant Industrial User sampling and inspections performed by the POTW.

(4) All information concerning any interference, upset, VPDES permit or Water Quality Standards violations directly attributable to Significant Industrial Users and enforcement actions taken to alleviate said events.

(5) A description of all enforcement actions taken against Significant Industrial Users over the previous 12 months.

(6) A summary of any changes to the submitted pretreatment program that has not been previously reported to the DEQ Regional Office.

(7) A summary of the permits issued to Significant Industrial Users since the last annual report.

(8) POTW and self-monitoring results for Significant Industrial Users determined to be in significant non-compliance during the reporting period.

(9) Results of the POTW's influent/effluent/sludge sampling, not previously submitted to DEQ.

(10) Copies of newspaper publications of all Significant Industrial Users in significant non-compliance during the reporting period. This is due no later than March 31 of each year.

(11) Signature of an authorized representative.

c. Submit any changes to the approved pretreatment program to the DEQ Regional Office and obtain approval before implementation of the changes.

d. Ensure all Significant Industrial Users' permits are issued and reissued in a timely manner and that the Significant Industrial User permits issued by the POTW are effective and enforceable.

e. Inspect and sample all Significant Industrial Users at a minimum of once a year.

(1) Sampling shall include all regulated parameters, and shall be representative of the wastewater discharged.

(2) Inspection of the Significant Industrial Users shall cover all areas which could result in wastewater discharge to the treatment works including manufacturing, chemical storage, pretreatment facilities, spill prevention and control procedures, hazardous waste generation and Significant Industrial User's self-monitoring and records.

f. Implement the reporting requirements of Part VII of the VPDES Permit Regulation.

g. Review the Enforcement Response Plan (ERP) and ensure it meets state and federal regulatory requirements. The approved ERP is an enforceable part of this permit and shall be implemented.

h. Develop local limits or reevaluate local limits using current influent, effluent and sludge monitoring data and submit the data and results of the evaluation to the DEQ Regional Office within one year of the effective or modification date. All Significant Industrial Users shall be sampled at the end of any categorical process and at the entrance to the treatment works.

i. Ensure that adequate resources are available to implement the approved program.

j. Meet all public participation requirements and annually public notice Significant Industrial Users in significant non-compliance with pretreatment standards and requirements for the previous 12 months.

k. Submit to the DEQ Regional Office a survey of all Industrial Users discharging to the POTW. The information shall be submitted to the POTW on the DEQ's Discharger Survey Form or an equivalent form that includes the quantity and quality of the wastewater. Survey results shall include the identification of significant industrial users of the POTW.

Survey Due: No later than September 10, 2011.

In lieu of the survey, the permittee may elect to develop, submit for approval and implement the plan to continuously survey the industrial community in their jurisdiction.

2. The DEQ may require the POTW to institute changes to its pretreatment program:

a. If the approved program is not implemented in a way satisfying the requirements of the Clean Water Act, Water Control Law or State regulations;

b. If problems such as pass-through, interference, water quality standards violations or sludge contamination develop or continue; and

c. If federal, state or local requirements change.

* A <u>significant industrial user</u> is one that:

- Has a process wastewater (**) flow of 25,000 gallons or more per day;
- Contributes a process wastestream which makes up 5-percent or more of the average dry weather hydraulic or organic capacity of the POTW;
- Is subject to the categorical pretreatment standards; or
- Has significant impact, either singularly or in combination with other Significant Dischargers, on the treatment works or the quality of its effluent.

** Excludes sanitary, non-contact cooling water and boiler blowdown.

E. TOXICS MANAGEMENT PROGRAM

1. Biological Monitoring:

a. In accordance with the schedule in 2. below, the permittee shall conduct annual acute and chronic toxicity tests for the duration of the permit term using 24-hour flow-proportioned composite samples of final effluent from outfall 001.

<u>The acute toxicity tests to use are</u>:

48-Hour Static Acute test using *Ceriodaphnia dubia*
48-Hour Static Acute test using *Pimephales promelas*

These acute tests are to be conducted using 5 geometric dilutions of effluent with a minimum of 4 replicates, with 5 organisms in each. The NOAEC (No Observed Adverse Effect Concentration), as determined by hypothesis testing, shall be reported with the result converted to TU_a (100/NOAEC). The LC_{50} should also be determined and noted on the submitted report. Tests in which control survival is less than 90% are not acceptable.

The chronic tests to use are:

Chronic 7-Day Static Renewal Survival and Growth Test using *Pimephales promelas*
Chronic 3-Brood Static Renewal Survival and Reproduction Test using *Ceriodaphnia dubia*

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions, derived geometrically) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction or growth. Results which cannot be determined (i.e., a "less than" NOEC value) are not acceptable, and a retest will have to be performed. Express the test NOEC as TU_c (Chronic Toxic Units), by dividing 100/NOEC for DMR reporting. Report the LC_{50} at 48 hours and the IC_{25} with the NOEC's in the test report.

The permittee may provide additional acute and/or chronic tests to address data variability during the period of data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3

b. The chronic test dilutions should be able to determine compliance with the following endpoints:

(1) Chronic NOEC of 13% effluent which is equivalent to a TU_c of 7.69

b. The test data will be evaluated by STATS.EXE for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule will be required and the toxicity tests of 1.a. may be discontinued.

d. If after evaluating the data, it is determined that no limit is needed, the permittee shall continue acute and chronic toxicity testing of the outfall annually, as on the reporting schedule in 2.

e. All applicable data will be reevaluated for reasonable potential at the end of the permit term.

2. Reporting Schedule:

The permittee shall supply 2 copies of the toxicity test reports specified in this Toxics Management Program in accordance with the following schedule:

Period	Compliance Periods	DMR/Report Submission Dates
1st Annual	January 1 – December 31, 2011	January 10, 2012
2nd Annual	January 1 – December 31, 2012	January 10, 2013
3rd Annual	January 1 – December 31, 2013	January 10, 2014
4th Annual	January 1 – December 31, 2014	January 10, 2015

F. SEWAGE SLUDGE USE AND DISPOSAL, LIMITATIONS AND MONITORING REQUIREMENTS

1. Sewage Sludge Use and Disposal

The permittee shall conduct all sewage sludge use or disposal activities in accordance with the Sludge Management Plan (SMP) approved with the issuance of this permit. Any **proposed changes** in the sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and **submitted for Department of Environmental Quality approval 90 days prior to the effective date of the changes**. Upon approval, the revised SMP becomes an enforceable part of the permit. The permit may be modified or, alternatively, revoked and reissued to incorporate limitations or conditions necessitated by substantive changes in sewage sludge use or disposal practices.

2. All samples shall be collected and analyzed in accordance with the approved O & M Manual [See special condition I.C.5.].

3. The permittee is required to retain the following information for at least 5 years:

a. The concentrations of each pollutant listed in Part I.A.3. (sludge);

b. A description of how the pathogen reduction requirements in Part I.A.3.c. (1) or (2) are met;

c. A description of how the vector attraction reduction requirements in Part I.A.3.d. are met;

d. A description of how the management practices specified in the approved Sludge Management Plan and/or this permit are met;

e. The following certification statement:

"I certify, under penalty of law, that the pathogen requirements in **(permittee shall insert either 9 VAC 25-31-710 A. or B.)**, vector attraction reduction requirements in **(permittee shall insert one of the vector attraction reduction requirements in 9 VAC 25-31-720 B.1-B.10.)**, the management practices and the site restrictions (if applicable) for each site on which bulk sewage sludge is applied have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements, vector attraction reduction requirements, the management practices and the site restrictions (if applicable) have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

G. COMBINED SEWER OVERFLOW ELIMINATION PROGRAM

The permittee operates a Combined Sewer System (CSS). The CSS includes combined sewer overflow (CSO) outfalls (Outfalls 009, 011, 014, 015, 017, 033, 034, 044, 048, 052, 055-057, 059, 061, 062, 066, 068, 070, 097, 098, 100, 109, 116, 121-125 and 133; see Attachment A). During the period beginning with the permit effective date and lasting until the permit expiration date, the permittee is authorized to discharge from the CSO outfalls listed in Attachment A. Such discharges shall be limited and conditioned by the permittee as specified in the following paragraphs.

Consistent with the Clean Water Act Section 301(b)(1)(C), the permittee must not discharge in excess of any limitation necessary to meet water quality standards established pursuant to State law. The Board has determined that the requirements outlined below constitute BCT/BAT/BPJ for the CSS and are limitations necessary to meet water quality standards.

1. Nine Minimum Controls

The permittee has implemented measures throughout the CSS to meet the technology-based requirements (nine minimum controls) of EPA's CSO Policy, April, 1994 and incorporated into the Clean Water Act pursuant to the Wet Weather Water Quality Act, Section 402(q) of the Clean Water Act, 33 U.S.C. §1342.B.5. The permittee shall continue to implement documented activities, procedures, management practices and operations related to the CSS as follows:

a. Operation and Maintenance

(1) Inspect and maintain the combined sewer overflow system to minimize the deposition of solids that could cause obstructions which would result in overflows.
(2) Inspect and perform preventive maintenance on CSS control structures (e.g. regulators and surrounding area) at least once per month.
(3) Inspect, remove screenings, and perform preventive maintenance at pumping stations as needed.
(4) Hydraulically clean sewers as needed.
(5) Televise, evaluate conditions, and replace/rehabilitate in accordance with the schedule for construction outlined for separation projects in the Special Order issued to the City of Lynchburg on August 19, 1994, as amended (the Order).

b. Use Collection System for Storage

(1) Maximize the in-line storage capacity by continuing the construction schedule for oversized interceptor sewers outlined in the Order.
(2) Rehabilitate and/or replace sewers as needed at the time sewers are separated in accordance with the priorities in the CSO Control Plan.
(3) Adjust WWTP influent pumping operations during wet weather events to maximize flows to the WWTP without exceeding permit limits.

c. Pretreatment Program

(1) Review and modify the Pretreatment Program as necessary to minimize the industrial discharges from the CSOs.
(2) Discontinue discharge of water treatment plant residuals to the CSS during wet weather events.
(3) Use the Pretreatment Program to require significant industrial users discharging to the CSS to establish management practices to control batch discharges during wet weather conditions where feasible.

d. Maximize Flow to Wastewater Treatment Plant

(1) Continue the replacement of interceptors under the schedule outlined in the Order.
(2) Increase treatment rate at the WWTP to the extent practical without causing treatment or compliance problems during wet weather events.

e. Eliminate Dry Weather Overflows

(1) No new combined sewers shall be built outside or inside of the presently existing combined sewer service areas, but this requirement shall not be construed to prevent the connection of new sanitary sewers to existing combined sewers for the purpose of conveying sewage to the treatment facility. The foregoing notwithstanding, no new connections shall be made to the combined sewers where those connections would cause overflows during dry-weather flow conditions.
(2) Inspect and perform preventive maintenance on diversion weirs regularly.
(3) Monitor pumping stations for Dry Weather Overflows (DWOs) regularly.
(4) Maintain a 24-hour on call team to respond to reported DWOs.

(5) Dry weather overflows from CSO outfalls are prohibited. Each dry weather overflow must be reported to DEQ's Regional Office as soon as the permittee becomes aware of the overflow in accordance with Part II.H. of this permit. When the permittee detects a dry weather overflow, the permittee shall begin corrective action immediately. The permittee shall inspect the dry weather overflow each subsequent day until the overflow has been eliminated.
(6) Eliminate Infiltration and Inflow in accordance with separation projects listed in the Order.
(7) Increase capacities in interceptor sewers in accordance with the schedule in the Order and subsequent studies.

f. Control Solids and Floatable Materials in CSOs

(1) Minimize discharges of floating materials by regular cleaning of streets and catch basins.
(2) Conduct an effective leaf pickup program.
(3) Conduct a catch basin cleaning program.
(4) Conduct a litter control program.

g. Pollution Prevention

(1) Conduct regular public education programs with facility tours and advice on proper disposal of substances (e.g. household wastes, leaves and the use of fertilizer).
(2) Support Adopt-a-Street programs.
(3) Use the pretreatment program to help implement awareness programs that encourage industrial waste reduction through improved housekeeping and encourages recycling.
(4) Operate and maintain a septage receiving station.
(5) Enforce ordinances that prohibit entrance of any substance that may impair or damage the function and performance of collection treatment systems.

h. Public Notification

(1) The permittee shall place and maintain warning signs at all CSOs which are predicted to discharge more frequently than once per month.
(2) Continue to hold public meetings to provide the public information and obtain public input on the CSS, CSOs and control program.
(3) Continue to hold community meetings to inform local groups on proposed control facilities.
(4) Continue local press coverage of CSO program developments is continuing.
(5) Continue rainleader disconnect assistance programs.
(6) Continue the CSO Information Hotline to respond to citizen concerns.
(7) A public meeting to receive comments on any significant proposed change to the Long-Term Control Plan (LTCP) shall be held prior to submittal of the LTCP to DEQ.

i. Monitoring

The permittee shall monitor the CSO system to characterize CSO impacts and the effectiveness of CSO projects. Monitoring results shall be used to validate and/or refine the CSO modeling. Monitoring shall include, at a minimum:

(1) Biosurvey Monitoring

The permittee shall conduct an annual biosurvey of benthic macroinvertebrates on Fishing and Blackwater Creeks at the following locations using EPA's Revision to Rapid Bioassessment Protocols for Use in Streams and Rivers as described in EPA 841-D97-002 (and subsequent editions).

(a) Fishing Creek – at the first suitable location upstream of Liggates Road and at the first suitable location downstream of Campbell Avenue. Suitable locations to be determined based on the status of the CSO control program.

(b) Blackwater Creek – at the first suitable location downstream of the confluence of Tomahawk Creek and Burton Creek and at the first suitable location downstream of Langhorne Road. Suitable locations to be determined based on the status of the CSO control program.

The exact monitoring locations shall be approved by DEQ prior to each biosurvey.

The permittee shall submit a technical report of each biosurvey to the DEQ Regional Office within 60 days of completion.

(2) Fecal Coliform Monitoring

The permittee shall annually sample and analyze for fecal coliform at the following locations within 24 hours following a significant rain event.

(a) James River near Reusens Dam (background data)
(b) James River at John Lynch Bridge (Rt. 29 business)
(c) Blackwater Creek at Williams viaduct
(d) Fishing Creek at Florida Ave. Bridge
(e) Blackwater Creek near Sandusky Park
(f) College Lake near Lakeside Dr.
(g) Blackwater Creek at Langhorne Road Bridge
(h) Ivy Creek at Langhorne Road Bridge
(i) Ivy Creek at Link Road Bridge

The results of each sampling shall be included with the next Discharge Monitoring Report submitted following the availability of results.

(3) The permittee shall monitor daily precipitation magnitude in the drainage area of the sewer collector system.

2. CSS Reporting

The permittee shall submit an annual report by December 1 of each year for the previous fiscal year to DEQ's Regional Office covering the following information:

a. Summaries of the monitoring required under Part I.E.1.

b. Modeled results of the number and volume of overflows for each CSO outfall based on the measured storm event data for the previous fiscal year using the Storm Water Management Model (SWMM).

c. A summary of the actions taken during the previous fiscal year for meeting Part I.E.1. of this permit (Nine Minimum Controls).

d. A report on the progress toward implementation of the Long-Term Control Plan (Part I.E.3.)

e. Financial information as required by the Order.

3. Long-Term Control Plan

The permittee has developed a Long-Term Control Plan as identified in 'The City of Lynchburg-Combined Sewer Overflow Study Update' dated October 1989. The conclusions of the Long-Term Control Plan were incorporated into the Order. The permittee shall plan, design, and construct new projects in accordance with the terms and schedule of compliance contained in the Order.

As part of the James River Interceptor Sewer Study (Study) being conducted by the Corps of Engineers, flow monitoring to determine capacities and effects of completed CSO projects is being used to update priorities and costs of projects in the Long-Term Control Plan. Any proposed revisions to the Long-Term Control Plan or project priorities as a result of the Study shall be submitted to the Department of Environmental Quality for approval.

ATTACHMENT A

Combined Sewer Overflow Points - City of Lynchburg **Permit No. VA0024970**

Outfall Serial Number	Name of Discharge Location	Latitude D - M - S	Longitude D - M - S	Receiving Waters
9	Dead end off Byrd and Belmont Streets	37^0-25'-31"	79^0-09'-21"	Tributary to Blackwater Creek
11	Monroe and 1st Streets	37^0-25'-00"	79^0-09'-25"	Tributary to Blackwater Creek
14	Between Brook Street and Centerdale Street	37^0-34'-00"	79^0-09'-49"	Fishing Creek
15	Between Kemper Street and 15th Street	37^0-24'-04"	79^0-09'-15"	Tributary to Fishing Creek
17	Tilden Avenue and 14th Street	37^0-23'-59"	79^0-09'-30"	Tributary to Fishing Creek
33	Mansfield Avenue between Eldon Street and Oakley Ave.	37^0-23'-46"	79^0-10'-08"	Tributary to Fishing Creek
34	Euclid Avenue and Eldon Street	37^0-23'-45"	79^0-10'-13"	Tributary to Fishing Creek
44	Hollins Mill Road at Cleveland Avenue	37^0-25'-55"	79^0-09'-54"	Tributary to Blackwater Creek
48	Pansy Street between Amherst Street and Botetourt Street	37^0-25'-44"	79^0-09'-10"	Tributary to James River
52	Beneath Rivermont Bridge at Blackwater Creek Trail	37^0-25'-10"	79^0-08'-52"	Blackwater Creek
55	Dead end of Pansy Street at Norwood Street	37^0-25'-40"	79^0-09'-00"	Tributary to James River
56	Horseford Road at Commerce Street	37^0-24'-39"	79^0-08'-15"	James River
57	13th Street and Jefferson Street	37^0-24'-46"	79^0-08'-15"	James River
59	10th Street and Jefferson Street	37^0-24'-54"	79^0-08'-23"	James River
61	Main Street and Elm Street	37^0-24'-23"	79^0-08'-05"	Tributary to James River
62	Between Holiday Street and Tazewell Street	37^0-23'-40"	79^0-08'-54"	Tributary to Fishing Creek
66	19th Street and Floyd Street	37^0-24'-02"	79^0-08'-46"	Tributary to Fishing Creek
68	Gordon Street and Carroll Avenue	37^0-23'-37"	79^0-09'-27"	Fishing Creek
70	Off Greene Street at Cobbs Street	37^0-23'-22"	79^0-09'-16"	Tributary to Fishing Creek
97	Access Road off Hydro Street at CSX Railroad	37^0-26'-51"	79^0-10'-29"	James River
98	Behind Randolph Macon Womans College at athletic field	37^0-26'-38"	79^0-10'-17"	Tributary to James River
100	Garnet Street at CSX Railroad	37^0-24'-23"	79^0-07'-58"	James River
109	Concord Turnpike at Wastewater Treatment Plant	37^0-23'-48"	79^0-06'-52"	James River
116	Meeting House Branch at 7th Street Extended	37^0-24'-31"	79^0-09'-32"	Meeting House Branch
121	James River and Cedar Drive	37^0-26'-37"	79^0-10'-06"	James River
122	James River and Denver Avenue	37^0-26'-03"	79^0-09'-09"	James River
123	James River and Willow Street Extended	37^0-25'-55"	79^0-09'-02"	James River
124	James River and I Street Extended	37^0-25'-39"	79^0-08'-38"	James River
125	Carter Glass Bridge and Concord Turnpike	37-24'-30"	79^0-08'-09"	James River
133	Concord Turnpike and Fishing Creek	37-23'-56"	79^0-07'-26"	Fishing Creek

30 # Remaining Open

ATTACHMENT 7

EFFLUENT/SLUDGE/GROUND WATER LIMITATIONS/MONITORING RATIONALE/SUITABLE DATA/STREAM MODELING/ ANTIDEGRADATION/ANTIBACKSLIDING

Part I.A. EFFLUENT LIMITATIONS AND MONITORING RATIONALE ARE BASED ON THE FOLLOWING:

FLOW – The current design flow of the facility is 22.0 million gallons per day (MGD). Flow monitoring is continuous by totalizing, indicating and recording equipment (in MGD). This monitoring frequency and sample type is in accordance with guidance for this size facility and should be appropriate for assessment of treatment plant capacity.

pH – The limits of 6.0 S.U. (minimum) to 9.0 S.U. (maximum) are based on technology [secondary treatment limits as per Federal effluent guidelines (40 CFR 133)]. This facility discharges to a receiving stream with a permanent flow (James River) and the limits will ensure compliance with water quality standards. The monitoring frequency is set at once per day and the sample type is grab (required for pH). This monitoring frequency and sample type should provide enough data for proper assessment of compliance with the effluent limits.

BOD_5 - The limits of 30 mg/l (monthly average) and 45 mg/l (weekly average) are based on technology [secondary treatment limits as per Federal effluent guidelines (40 CFR 133)], are carried over from the previous permit and, are protective of water quality. The mass limits of 2498 kg/d (monthly average) and 3747 kg/d (weekly average) were calculated based on the design flow of 22.0 MGD. The monitoring frequency is 3 days per week, which is based on a reduced monitoring frequency granted for good plant performance (see below). The sample type is 24-hour composite (based on design flow). This is in accordance with guidance for this size facility and should provide enough data for proper assessment of compliance with the effluent limits and water quality standards.

The James River Basin Water Quality Management Plan (WQMP) (see Attachment 10) allows for a BOD_5 wasteload allocation of 8,000 lbs/day (monthly average). The current permit monthly average concentration limit of 30 mg/l translates to a mass limit of 2,498 kg/d (5,507 lbs/d) monthly average which is in compliance with the WQMP allocation.

TSS - The limits of 30 mg/l (monthly average) and 45 mg/l (weekly average) are based on technology [secondary treatment limits as per Federal effluent guidelines (40 CFR 133)], are carried over from the previous permit and, are protective of water quality. The mass limits of 2498 kg/d (monthly average) and 3747 kg/d (weekly average) were calculated based on the design flow of 22.0 MGD. The monitoring frequency is 3 days per week, which is based on a reduced monitoring frequency granted for good plant performance (see below). The sample type is 24-hour composite (based on design flow). This is in accordance with guidance for this size facility and should provide enough data for proper assessment of compliance with the effluent limits and water quality standards.

TRC - The total residual chlorine limits of 22 µg/l (monthly average) and 26 µg/l (weekly average) are based on the acute water quality criterion and will ensure compliance with water quality standards. The monitoring frequency is once per day and the sample type is grab (required for chlorine). This monitoring frequency and sample type are in accordance with guidance for this size facility and should provide enough data for proper assessment of compliance with the effluent limits and water quality standards.

***E.Coli* -** The limit is 126 N/Cml (geometric mean) is based on water quality standards and ensures both proper disinfection and protection of water quality. The monitoring frequency is once per week (based on the design flow) and the sample type is grab (required for *E. coli*). This monitoring frequency and sample type are in accordance with guidance for this size facility and should provide enough data for proper assessment of compliance with the effluent limit and water quality standards.

AMMONIA: Evaluated using the highest value contained in the data (14.8 mg/l) and no limit was deemed necessary.

METALS: The following parameters were evaluated based on the acute and chronic wasteload allocations: arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver and zinc. Arsenic, chromium, cadmium, lead, nickel, selenium and silver were all below the QL so no limits are necessary (no need to run in STATS). Copper, mercury and zinc were evaluated with STATS; however, no limits were necessary (see STATS printouts).

The parameters of antimony and thallium were also assessed from a human health perspective. Both had all data below the QLs (which were well below the WLAs) so no limit would be deemed necessary for these parameters.

OTHER PARAMETERS:

Cyanide was evaluated with STATS; however, no limits were necessary (see STATS printout).

For chloroform, the average of the data is well below the WLA so no limit was deemed necessary for this parameter.

PARAMETER	WASTELOAD ALLOCATION			DATA (ug/l)			QL
	Acute	Chronic	Human Health				
Arsenic	870	2400		<60	<60	<60	60
Cadmium	9.7	17		<5	<5	<5	5
Chromium+6*	41	180		<10	<2	<10	10/2
Copper	33	140		5	<5	5	5
Lead	290	200		<20	<20	<20	20
Mercury	3.6	12		1.5 ng/l	<2.0 ng/l	1.7 ng/l	
Nickel	450	310		<40	<40	<40	40
Selenium	51	81		<2	<2	<2	2
Silver	8.4			<1.0	<1.0	<1.0	1.0
Zinc	290	1800		52	45	40	20
Cyanide	56	84		26	28	12	10
Antimony			9000	<80	<80	<80	80
Thallium			130	<40	<40	<40	40
Chloroform			1,500,000	<10	32.9	88.7	10

NOTE: The chromium data are total chromium; however, compared to hexavalent chromium (most toxic form), no limit would be deemed necessary.

Evaluation for Reduced Monitoring Due to Exemplary Facility Operations

In accordance with the VPDES permit manual, facility's having exemplary operations that consistently meet permit requirements are eligible for reduced permit monitoring. With this reissuance, an evaluation was completed to determine if the facility was eligible.

Two factors are evaluated for eligibility. The first is "Did the facility receive any form of compliance warning or notice of violation?", the second is based on effluent quality. During the last permit term, it was not necessary to issue any compliance warnings or Notice of violation letters. Therefore, they meet the initial entrance criteria. Attachment 7, presents applicable data reported on DMRs for the period of record from September 1999 through January 2004. Based on these records, the facility qualified for reduced monitoring for **BOD5 and TSS**.

BOD_5
The facility's effluent pollutant concentrations were 18% and the mass loading was 11% of the allowable level for BOD_5. Since the pollutant was <49% of the allowable levels, monitoring may be reduced from the current 7/Week requirement to 3/Week. For a facility of this size and discharge volume, normal monitoring would be 7/Week for this parameter.

TSS
The facility's effluent pollutant concentrations were 23% and the mass loading was 14% of the allowable level for TSS. Since the pollutant was <49% of the allowable levels, monitoring may be reduced from the current 7/Week requirement to 3/Week. For a facility of this size and discharge volume, normal monitoring would be 7/Week for this parameter.

Should the compliance status change for this facility, a condition has been added to resume unreduced monitoring in accordance with the VPDES Manual.

pH
Similarly, pH was evaluated. Agency Guidance states that for either of these parameters to be reduced, no single measurement can be within 0.5 s.u. (pH) of any limit. Attachment 7 presents applicable data reported on DMRs for the period of record from July 2001through June 2004.

Although there were no violations reported during the period of the record, the facility did have several values reported within 0.5 s.u. of the lower limit of 6.0 s.u., therefore the facility does not qualify for reduced monitoring during this permit term.

As a result, daily pH monitoring is included with this reissuance in accordance with the VPDES manual.

Part I.A. SEWAGE SLUDGE LIMITATIONS AND MONITORING RATIONALE ARE BASED ON THE FOLLOWING:

LIMITATIONS RATIONALE

Arsenic, Cadmium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium and Zinc - The VPDES Permit Regulation, 9 VAC 25-31-540 A.1., requires bulk sewage sludge or sewage sludge sold or given away in a bag or other container to meet the ceiling concentrations specified in 9 VAC 25-31-540 B.1.(noted below) in order to be land applied. The following ceiling concentrations are in milligrams per kilogram (dry weight basis).

Arsenic	75	Molybdenum	75
Cadmium	85	Nickel	420
Copper	4300	Selenium	100
Lead	840	Zinc	7500
Mercury	57		

Arsenic, Cadmium, Copper, Lead, Mercury, Nickel, Selenium and Zinc - The VPDES Permit Regulation requires: (1) bulk sewage sludge that is applied to agricultural land, forest, a public contact site or a reclamation site (9 VAC 25-31-540 A.2.b.); (2) bulk sewage sludge that is applied to a lawn or a home garden (9 VAC 25-31-540 A.3.); and, (3) sewage sludge that is sold or given away in a bag or other container (9 VAC 25-31-540 A.4.a.), to meet the following monthly average pollutant concentrations specified in 9 VAC 25-31-540 B.3.(noted below). The following monthly average pollutant concentrations are in milligrams per kilogram (dry weight basis).

Arsenic	41	Mercury	17
Cadmium	39	Nickel	420
Copper	1500	Selenium	100
Lead	300	Zinc	2800

MONITORING RATIONALE

The frequency of monitoring for sewage sludge being land applied is established in the VPDES Permit Regulation, 9 VAC 25-31-570 A. The frequency is based on the amount of sewage sludge applied, in metric tons per 365-day period (=/> 1,500 but <15,000 metric tons, dry weight).

ATTACHMENT 8

SPECIAL CONDITIONS RATIONALE

VPDES PERMIT PROGRAM
LIST OF SPECIAL CONDITIONS RATIONALE

B. ADDITIONAL TOTAL RESIDUAL CHLORINE (TRC) LIMITATIONS AND MONITORING REQUIREMENTS

Rationale: The State Water Quality Standards, 9 VAC 25-260-160 (Fecal coliform bacteria; shellfish waters) and 9 VAC 25-260-170 (Bacteria; other waters) address bacterial standards in surface waters and sewage discharges. These internal limitations and monitoring requirements are designed to achieve those water quality standards. In addition, 40 CFR 122.41(e) requires the permittee, at all times, to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) in order to achieve compliance with the permit (includes laboratory controls and QA/QC). This requirement will also insure both continued proper operation of the chlorination facilities and maintenance of a minimum level of chlorine in order to achieve adequate disinfection.

C. OTHER REQUIREMENTS OR SPECIAL CONDITIONS

1. Permit Reopeners

a. Sludge Reopener

Rationale: Required by the VPDES Permit Regulation, 9 VAC 25-31-220 C., and 40 CFR 122.44(c)(4), which note that all permits for domestic sewage treatment plants (including sludge-only facilities) include any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the Clean Water Act.

b. Total Maximum Daily Load (TMDL)] Reopener

Rationale: Section 303(d) of the Clean Water Act requires that total maximum daily loads (TMDLs) be developed for streams listed as impaired in order that they achieve the applicable water quality standards. This condition allows for the permit to be either modified or, alternatively, revoked and reissued to bring it into compliance with any applicable TMDL approved for the receiving stream. The reopener recognizes that, according to section 402(o)(l) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan or other waste load allocation prepared under section 303 of the Act.

c. Chesapeake Bay Nutrients Reopener

Rationale: Significant portions of the Chesapeake Bay and its tributaries are listed as impaired on Virginia's 303(d) list of impaired waters for not meeting the aquatic life use support goal, and the 2004 Virginia Water Quality Assessment 305(b)/303(d) Integrated Report indicates that 83% of the mainstem Bay does not fully support this use support goal under Virginia's water quality assessment guidelines. Nutrient enrichment is cited as one of the primary causes for impairment.

2. Licensed Wastewater Operator Requirement

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-200 D., requires the permittee to employ or contract at least one wastewater works operator who holds a current wastewater license for the permitted facility. The Code of Virginia 54.1-2300 et seq., Rules and Regulations for Waterworks and Wastewater Works Operators (18 VAC 160-20-10 et seq.) requires licensure of operators. In addition, the Sewerage Collection and Treatment Regulations (12 VAC 5-581-10 et seq.), recommends a

manning and classification schedule for domestic wastewater treatment plant operators, based on plant capacity and specific treatment types.

3. Reliability Class

Rationale: The Sewerage Collection and Treatment Regulations (12 VAC 5-581-10 et seq.) specify reliability classes for all domestic sewage facilities.

4. Certificate to Construct (CTC) and Certificate to Operate (CTO) Requirements

Rationale: The Sewerage Collection and Treatment Regulations (12 VAC 5-581-10 et seq.) specify the requirement for the review and approval of plans and specifications (CTC) and the subsequent issuance of a CTO prior to operating any domestic sewage facilities.

5. O & M Manual Requirements

Rationale: Required by the State Water Control Law, Section 62.1-44.19 and the VPDES Permit Regulation, 9 VAC 25-31-190 E. The State Water Control Law, Section 62.1-44.21, allows requests for any information necessary to determine the effect of the discharge on state waters. Section 401 of the Clean Water Act requires the permittee to provide opportunity for the state to review the proposed operations of the facility. In addition, 40 CFR 122.41(e) requires the permittee, at all times, to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) in order to achieve compliance with the permit (includes laboratory controls and QA/QC).

6. 95% Design Capacity Notification

Rationale: Required by the VPDES Permit Regulation, 9 VAC 25-31-200 B.2., for all POTWs and PVOTWs in order to insure continued compliance with the terms of the permit.

NOTE: The City of Lynchburg is currently addressing combined sewer overflow (CSO) issues via a Consent Special Order of August 19, 1994. In that regard, there would be no need for the City to provide the notification again as long as the Order is in place.

7. Compliance Reporting Under Part I.A. and I.B

Rationale: Authorized by the VPDES Permit Regulation, 9 VAC 25-31-190 J.4. and 220 I. This condition is necessary when toxic pollutants are monitored by the permittee and a maximum level of quantification and/or a specific analytical method is required in order to assess compliance with a permit limit or to compare effluent quality with a numeric criterion. The condition also establishes protocols for calculation of reported values.

8. Materials Handling and Storage

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-50 A., prohibits the discharge of any wastes into State waters unless authorized by permit. The State Water Control Law, Sec. 62.1-44.16 and 17 authorizes the Board to regulate the discharge of industrial or other wastes. Section 301 of the Clean Water Act prohibits the discharge of any pollutant unless it complies with specific sections of the Act.

9. Effluent Monitoring Frequencies

Rationale: The permittee is granted a reduction in monitoring frequency based on a history of permit compliance. To remain eligible for the reduction, the permittee should not have violations that result in enforcement actions. If the permittee fails to maintain the previous level of performance, the baseline monitoring frequencies should be reinstated. The incentive for reduced monitoring is an effort to reduce the cost of environmental compliance and to provide incentives to facilities which

demonstrate outstanding performance and consistent compliance with their permits. Facilities which cannot comply with specific effluent parameters or have other related violations will not be eligible for this benefit. This is in conformance with Guidance Memorandum No. 98-2005 - Reduced Monitoring and EPA's proposed "Interim Guidance For Performance-Based Reduction of NPDES Permit Monitoring Frequencies" (EPA 833-B-96-001) published in April 1996.

10. Indirect Dischargers

Rationale: Required by the VPDES Permit Regulation, 9 VAC 25-31-200 B.1 and 40 CFR 122.42(b), for POTWs and PVOTWs which receive waste from someone other than the owner of the treatment works. DEQ must be notified of the introduction of new pollutants to the treatment system, from an indirect discharger, whether as increased volume or a change in the character of the pollutants.

11. PCB Monitoring

Rationale: This special condition requires the permittee to monitor and report PCB concentrations in dry weather and wet weather effluent samples consistent with 9 VAC 25-260-280. The results from this monitoring shall be used to implement the PCB TMDL that is being developed for the James River.

12. Facility Closure Plan

Rationale: This condition is required in the event that some or all of the operations at the facility cease. The system (or part of the system) must be properly closed out in accordance with regulatory requirements.

13. Permit Application Requirement

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-100 D. and 40 CFR 122.21 (d)(1) require a new application at least 180 days prior to expiration of the existing permit. In addition, the VPDES Permit Regulation, 9 VAC 25-31-100 E.1. and 40 CFR 122.21 (e)(1) note that a permit shall not be issued before receiving a complete application.

D. PRETREATMENT

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-10 et seq., Part VII, and 40 CFR Part 403 establish the legal requirements for State, local government and industry to implement National Pretreatment Standards. The Pretreatment Standards are implemented to prevent POTW plant pass through, interference, violation of water quality standards or contamination of sewage sludge. The regulation requires POTWs with a total design flow greater than 5 MGD with significant or categorical industrial input to establish a Pretreatment Program. The regulation also may apply to POTWs with design flows less than 5 MGD if circumstances warrant control of industrial discharges.

E. TOXICS MANAGEMENT PROGRAM (TMP)

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-210 and 220 I., and 40 CFR 122.44(d) require monitoring in the permit to provide for and assure compliance with all applicable requirements of the Clean Water Act and the State Water Control Law.

F. SEWAGE SLUDGE USE AND DISPOSAL, LIMITATIONS AND MONITORING REQUIREMENTS

1. Sludge Use and Disposal

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-100 P., 220 B.2. and 420 through 720, and 40 CFR 503 require all treatment works treating domestic sewage to submit information on sludge use and disposal practices and to meet specified standards for sludge use and disposal. The VPDES sewage sludge permit application form and its attachments constitute the sludge management plan and will be considered for approval with the VPDES permit. Technical requirements may be derived from the Department of Health's Biosolids Use Regulation, 12 VAC 5-585-10 et seq. and sections 330 and 340 of that regulation specify the general purpose and control requirements for an O&M manual in order to facilitate proper O&M of the facilities to meet the requirements of the regulation.

2. Notification of Land Application

Rationale: The permit provides for sludge monitoring to be initiated at the time of land application. The notification requirement will provide DEQ with the date that land application is initiated along with the selected biosolids applicator. Annual reports can then be anticipated the following February 19th, as per permit special condition I.F.3.

3. Limitations and Monitoring – See Attachment 7.

4. Pathogen Reduction Limitations

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-560 A., requires that the pathogen requirements set forth in 9 VAC 25-31-710 A. (Class A sludge) or the pathogen requirements and site restrictions set forth in 9 VAC 25-31-720 B. (Class B sludge) be met for bulk sewage sludge that is applied to agricultural land, forest, a public contact site or a reclamation site.

5. Vector Attraction Reduction Limitations

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-560 C., requires that one of the vector attraction reduction requirements set forth in 9 VAC 25-31-720 B.1. through B.10. be met for bulk sewage sludge that is applied to agricultural land, forest, a public contact site or a reclamation site.

6. Recordkeeping

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-580 C., sets forth the recordkeeping requirements, including the pollutant concentrations, how the pathogen and vector attraction reduction requirements are met and the certification.

For Reporting as per permit conditions I.A.3.a. and I.F.3.:

Annual Sludge Production Report

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-590 a., sets forth the reporting requirements and the February 19th due date.

F. COMBINED SEWER OVERFLOW ELIMINATION PROGRAM

Rationale: In December 1989, the City of Lynchburg completed and submitted an update to the 1979 CSO study. The purpose of the update was to review and evaluate the conclusions/recommendations of the 1979 study to determine if they were still valid and to develop a CSO control plan, implementation priorities, and implementation plan taking into account the City's financial capability. The Board approved the CSO control plan and incorporated requirements into a Consent Special Order issued to the City 1993. These requirements are also incorporated into this permit.

Part II CONDITIONS APPLICABLE TO ALL VPDES PERMITS

The VPDES Permit Regulation, 9 VAC 25-31-190, and 40 CFR 122, require all VPDES permits to contain or specifically cite the conditions listed.

ATTACHMENT 9

MATERIAL STORED

Process Chemicals

NAME	PURPOSE	STORAGE	SUPPLIER
Sodium Hypochlorite	Disinfecting of Effluent, Filament Control, Odor and Settling in Gravity Thickener	2 x 10,000 Gallon Tanks	Various
Sodium Bisulfite	Dechlorination of Effluent	2 x 3000 Gallon Tanks	Various
Quick Lime	Sludge Stabilization	2 x 90 Ton Silos 2 x 3 Ton Silos	Various
Manic Polymer	Sludge Thickening - Gravity Belt Thickener, Improving Secondary Clarification	2 x 3000 Gallon Tanks	Various
Dry Cationic Polymers	Sludge Dewatering - Centrifuge	55 Pound Bags	Various
Emulsion Cationic Polymer	Sludge Dewatering - Centrifuge	250 Gallon Totes 2200 Pounds Per Tote	Various
Sulfuric Acid Sodium Hypochlorite Caustic	Odor Control	7000 Gallon Tank 7000 Gallon Tank 7000 Gallon Tank	Various
Potassium Permanganate	Control of Hydrogen Sulfide	55-60 Pound Buckets	Various
Water Based Defoamer	Control of Foam on the Effluent	250 Gallon Totes	Various

Non-Process Chemicals

NAME	PURPOSE	STORAGE	SUPPLIER
Parts Cleaning Solvent	Cleaning Parts for Repair	55 Gallon Drum	Various
Oils and Lubricants	Plant Equipment	30 & 50 Gallon Drums 5 & 30 Gallon Pails Quarts and Tubes	Various
Grounds and Housekeeping Products	Grounds and Housekeeping Upkeep	Pints and Gallons	Various
Laboratory Chemicals	Laboratory Testing	Various	Various

ATTACHMENT 10

RECEIVING WATERS INFO./
TIER DETERMINATION/STORET DATA

ATTACHMENT 11

303(d) LISTED SEGMENTS

ATTACHMENT 12

TABLE A AND TABLE B - CHANGE SHEETS

TABLE A

VPDES PERMIT PROGRAM – VA0024970
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes FROM PREVIOUS PERMIT and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER	MONITORING CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
001	BOD_5	No change. Remains at 3/Week.	No change.	Continued compliance record for the facility and Agency Guidance and Permit Manual.	7/26/10 KAC
	TSS	No change. Remains at 3/Week.	No change.	Continued compliance record for the facility and Agency Guidance and Permit Manual.	7/26/10 KAC
	E.Coli	No change. Remains at 1/Week.	No change.	Continued compliance record for the facility and Agency Guidance and Permit Manual.	7/26/10 KAC
	D.O.	1/Day to None.	NA	Mass loading of the model for the WQ Management Plan versus the current mass loading of the WWTP and their past number of years of D.O. monitoring.	7/26/10 KAC
300	None	No Monitoring.	No limits.	New storm water outfall on a vacant lot which is now owned by the City (to be used for future construction).	8/3/2010

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL
Materials Stored.	Added as storm water plan requirements were deleted; facility meets no exposure.	7/26/10 KAC
TMP Condition language and monitoring.	Updated as per latest guidance.	7/26/10 KAC
Storm Water Special Condition	Deleted as facility has received no exposure certification.	7/26/10 KAC
Biosolids limitations, monitoring and special conditions (effective upon initiation of land application)	Added as City may initiate land application of biosolids through a biosolids applicator.	8/3/2010 KAC

TABLE B

VPDES PERMIT PROGRAM – VA0024970
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes MADE DURING PERMIT PROCESS and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
001					

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL

ATTACHMENT 13

EPA/VIRGINIA DRAFT PERMIT SUBMISSION CHECKLIST

Part I. Virginia Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	**City of Lynchburg Regional Wastewater Treatment Plant**
NPDES Permit Number:	**VA0024970**
Permit Writer Name:	**Kevin A. Crider**
Date:	**July 1, 2010**

Major [**X**] **Minor** [ ] **Industrial** [ ] **Municipal** [**X**]

I.A. Draft Permit Package Submittal Includes:	Yes	No	N/A
1. Permit Application?	**X**		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	**X**		
3. Copy of Public Notice?		**X**	
4. Complete Fact Sheet?	**X**		
5. A Priority Pollutant Screening to determine parameters of concern?	**X**		
6. A Reasonable Potential analysis showing calculated WQBELs?	**X**		
7. Dissolved Oxygen calculations?			**X**
8. Whole Effluent Toxicity Test summary and analysis?	**X**		
9. Permit Rating Sheet for new or modified industrial facilities?			**X**

I.B. Permit/Facility Characteristics	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		**X**	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	**X**		
3. Does the fact sheet **or** permit contain a description of the wastewater treatment process?	**X**		
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		**X**	
5. Has there been any change in streamflow characteristics since the last permit was developed?		**X**	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		**X**	

I.B. Permit/Facility Characteristics – cont.	Yes	No	N/A
7. Does the fact sheet **or** permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	**X**		
8. Does the facility discharge to a 303(d) listed water? **Fecal Coliform, PCBs in Fish Tissue**	**X**		
8.a. Has a TMDL been developed and approved by EPA for the impaired water? **Fecal Coliform – Yes; PCBs - NO**	**X**	**X**	
8.b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit? **(for PCBs)**		**X**	
8.c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water? **Fecal Coliform**	**X**		
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		**X**	
10. Does the permit authorize discharges of storm water? **Facility has applied for and received no exposure certification.**	**X**		
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		**X**	
12. Are there any production-based, technology-based effluent limits in the permit?	**X**		
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		**X**	
14. Are any WQBELs based on an interpretation of narrative criteria?		**X**	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		**X**	
16. Does the permit contain a compliance schedule for any limit or condition?		**X**	
17. Does the permit include appropriate Pretreatment Program requirements?	**X**		
18. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		**X**	
19. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	**X**		
20. Is there any indication that there is significant public interest in the permit action proposed for this facility?		**X**	
21. Has previous permit, application, and fact sheet been examined?	**X**		

Part II NPDES Draft Permit Checklist
Region III NPDES Permit Quality Checklist – for POTWs
(To be completed and included in the record only for POTWs)

II.A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the fact sheet **or** permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits – General Elements	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the record discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?			X

II.C. Technology-Based Effluent Limits (POTWs)	Yes	No	N/A
1. Does the permit contain numeric limits for ALL of the following: BOD (or alternative, e.g., CBOD, COD, TOC), TSS and pH?	X		
2. Does the permit require at least 85% removal for BOD (or BOD alternative) and TSS (or 65% for equivalent to secondary) consistent with 40 CFR Part 133?	X		
2.a. If no, does the record indicate that application of WQBELs, or some other means, results in more stringent requirements than 85% removal or that an exception consistent with 40 CFR 133.103 has been approved?			X
3. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	X		
4. Are permit limits for BOD and TSS expressed in terms of both long-term (e.g., average monthly) and short term (e.g., average weekly) limits?	X		
5. Are any concentration limitations in the permit less stringent than the Secondary treatment requirements (30 mg/l BOD5 and TSS for a 30-day average and 45 mg/l BOD5 and TSS for a 7-day average?		X	
5.a. If yes, does the record provide a justification (e.g., waste stabilization pond, trickling filter, etc.) for the alternate limitations?			X

II.D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering state narrative and numeric criteria for water quality?	X		
2. Does the fact sheet indicate that any WQBELs were derived from a completed and EPA approved TMDL? **E. coli – Yes; PCBs - No**	X	X	

II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A
3. Does the fact sheet provide effluent characteristics for each outfall? **Form 2F was not requested for all CSO outfalls.**		X	
4. Does the fact sheet document that a "reasonable potential" evaluation was performed?	X		
4.a. If yes, does the fact sheet indicate that the "reasonable potential" evaluation was performed in accordance with the State's approved procedures?	X		
4.b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?	X		
4.c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have "reasonable potential"?	X		
4.d. Does the fact sheet indicate that the "reasonable potential" and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations)?	X		
4.e. Does the permit contain numeric effluent limits for all pollutants for which "reasonable potential" was determined?	X		
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term AND short-term effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the record indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy?	X		

II.E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters and other monitoring as required by State and Federal regulations?	X		
1.a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate his waiver?			X
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require at least annual influent monitoring for BOD (or BOD alternative) and TSS to assess compliance with applicable percent removal requirements?		X	
4. Does the permit require testing for Whole Effluent Toxicity?	X		

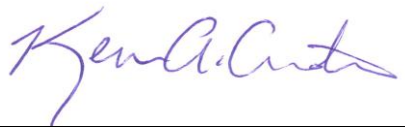
II.F. Special Conditions	Yes	No	N/A
1. Does the permit include appropriate biosolids use/disposal requirements?	X		
2. Does the permit include appropriate storm water program requirements? **Facility granted no exposure certification.**		X	
3. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X

II.F. Special Conditions – cont.	Yes	No	N/A
4. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	**X**		
5. Does the permit authorize discharge of sanitary sewage from points other than the POTW outfall(s) or CSO outfalls [i.e., Sanitary Sewer Overflows (SSOs) or treatment plant bypasses]?	**X**		
5.a. Does the permit require implementation of the "Nine Minimum Controls"?	**X**		
5.b. Does the permit require development and implementation of a "Long-Term Control Plan"?	**X**		
5.c. Does the permit require monitoring and reporting for CSO events?	**X**		
6. Does the permit include appropriate Pretreatment Program requirements?	**X**		

II.G. Standard Conditions	Yes	No	N/A
1. Does the **permit** contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	**X**		
List of Standard Conditions – 40 CFR 122.41 • Duty to comply • Duty to reapply • Need to halt or reduce activity not a defense • Duty to mitigate • Proper O & M • Permit Actions • Property rights • Duty to provide information • Inspections and entry • Monitoring and reporting • Signatory requirement • Reporting requirements Planned change Anticipated non-compliance Transfers Monitoring Reports Compliance schedules 24-hour reporting Other non-compliance • Bypass • Upset			
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for POTWs regarding notification of new introduction of pollutants and new industrial users [40 CFR 122.42(b)]?	**X**		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	**Kevin A. Crider**
Title	**Environmental Engineer Senior / Water Permit Writer**
Signature	
Date	**July 1, 2010**

ATTACHMENT 14

CHRONOLOGY SHEET

VPDES PERMIT PROGRAM – **VA0024970**

CHRONOLOGY OF EVENTS

APPLICATION RECEIVED	APPLICATION RETURNED	ADDITIONAL INFO REQUESTED	APPLICATION/ADD INFO DUE BACK IN RO	APPLICATION/ADD. INFO RECEIVED

APPLICATION TO VDH:	VDH COMMENTS RECEIVED:
APPLICATION ADMIN. COMPLETE:	APPLICATION TECH. COMPLETE:

Date	DESCRIPTIVE STATEMENT [CHRONOLOGY OF EVENTS] (Meetings, telephone calls, letters, memos, hearings, etc. affecting permit from application to issuance)